3) [illegible]
Deploy two on the left and three on the right. Don't worry too much about the rescuing, just lead the Mettalix boys into extinction, it's much easier. Free as many prisoners as you can along the way, however, as extra men are very useful. Have lots of grenades, a little explosive, and a rocket launcher. Pinch weapons and use the video key (found on one of the enemy) in the video room to see where they are. The rocket launcher makes loads of rubble which will slow down the enemy's movement (and yours, if you go over it).

4) Cyber Hordes
Tricky little number this. Play on the lower levels first, or the higher ones are virtually impossible.

Equip your men with the best stuff you can. Good armour is the most important, followed closely by several auto-cannons. Leave about half your men with no weapons, and deploy a man near to the open casket on the right. Get the orange key, and go around unlocking the orange caskets, looting all that's inside (except the green keys). Position the armed men either at the end of a corridor, or inside rooms which the enemy have been known to have walked past – leave the door open and ambush them.

Remember you are defending, so don't chase them around.

5) Paradise Valley
Compared to this, the previous levels are easy! Equip with the most destructive weapons available, but make sure one or two men are armed to wipe out the enemy at close range, without destroying the entire party. It's worthwhile carrying lots of grenades.

The best way across, as far as I can see, is to flatten the valley with sprayings from the auto-cannon, and a few grenades. The splodges are strong, taking an average of two auto-cannon/grenade hits to finish. The water dwellers, though they cannot fire, are dangerous to touch but concentrated explosions will finish them.

Don't use the underground, just cross the valley, but watch out for aliens in the rocks, it's a bit risky using the auto-cannons there.

Once past that, clear as much as you can from the left side of the river with copi-

THE MULTIFACE WAY.

And finally, a plethora of Multiface Pokes from Paul Williams of Llangybi, Stephen Frackleton of Liverpool, Michael Leatherbarrow of Formby (how's George?) and Stephen Troupe (I've seen that name before) of Kings Lynn.

Just one thing, however. You may notice that there are TWO pokes for *Chase HQ*, one for the Tape version and one for the Disk version. This is because the game, it seems, has been assembled differently for each format This may well be the case on other games also, so, for sanity's sake, please try to indicate tape or disk versions when sending Multiface pokes. Also, bear it in mind if one of the pokes you try refuses to work. (excuse number 472/B)

NAME	ADDRESS	POKE	EFFECT
Batman the Movie	1D62	FF	Removes grenades
Shinobi	0F62	00	Inf. lives
Vindicator level 1	05B4	A7	Inf. Oxygen
	0BD9	A7	Inf. lives
level 2	1D21	A7	Inf. lives
level 3	12F9	A7	Inf. lives
	060E	00	Inf. time (part 1)
	0615	00	Inf. time (part 2)
R-Type	927B	A7	Inf. credits
Joe Blade 3	2079	A7	No Baddies
Wec Le Mans	1345	00	Inf. time
Fast Food	570C	00	Inf. lives
Turbo Esprit	6FF7	7E	Lots of lives
Batty	432B	FF	255 lives
Buggy boy	1E7F	C9	Inf. time
Game Over	1F7C	00	Inf. lives
Combat School	042C	0A	Slows timer
Chase HQ (disc)	2022	00	Inf. time
	3820	00	Inf. turbo
Chase HQ (tape)	2074	00	Inf. time
	3872	00	Inf. turbo
Operation Thunderbolt	CF62	00	Inf. life
Ghouls'n Ghosts	3182	A7	Inf. life
Untouchables	0FD2	A7	Inf. time
Vigilante	5816	A7	Inf. life



Just in case you don't already how to put in these BLACK BOX POKES, here are the steps to success.

a) Load the game as normal.
b) Press the RED button on the MULTIFACE.
c) Press "T" for tool.
d) Press "*" to make sure you select the code.
e) Press "H" for HEXADECIMAL input.
f) Press "SPACE" for input.
g) Type in the ADDRESS (4 characters ie. 3A7C)
h) Type in the POKE (2 characters ie. A7)
i) Press "RETURN"
j) Press "ESC" back to the menu.
k) Press "R" return to the game.

Operation Wolf

Stephen Smith of Peterborough suggests that if you're lucky enough to own the Light Gun version of *Operation Wolf*, all you have to do is hold down the CTRL SHIFT and ESC keys and you will move to the next level.

MULTIFACE POKES

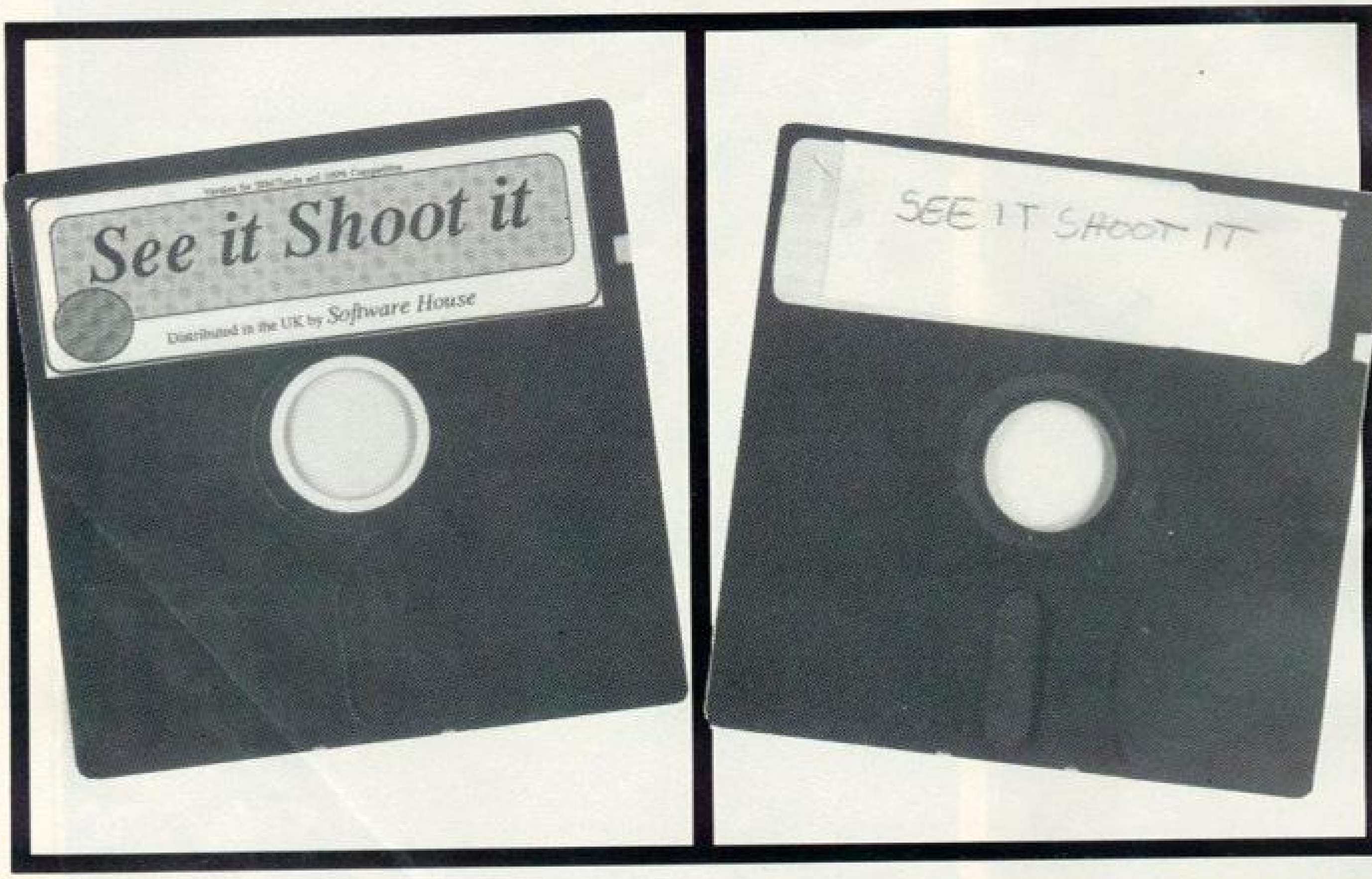
Just enough space for a few Multiface pokes. This month's batch come from Carl Surry of Barnet. Thanks, Carl.

NAME	ADDRESS	POKE	EFFECT
Wizard Willy	1C1C	00	Inf. lives
Operation Gunship	858E	00)	
	8591	00)	Inf. armour
	8D53	00	Inf. bul-
lets			
	855B	00	Inf. fuel
	8E9B	00	Inf. bombs
The Hit Squad	46F9	00	Inf. lives
Frankenstein Jnr.	5DA7	A7	Inf. Bottle

Chase HQ

The keypress cheats are well and truly on the move (campaign your favourite software house now!). Lots of people have discovered a built-in cheat for *Chase HQ*. Re-define the keys as S.H.O.C.K.E.D and "TEST" will appear at the bottom right. At any time during play, press "1" to restart level, "2" to move to the next level, "3" (should I be telling you this?) to see the end game display, and "4" to get an extra life. Thanks to Samir Al-Amar, Paul Hinchliff, Kirk Marshall, Tien Tran, Paul Williams and Gregory Janiec, Paul Turner and Asif Chaudhry for spotting it.

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PIRACY IS THEFT

First Edition

And so, the end is near. And so we face the final cur... (*that's enough sentiment – ed*). Yes, it's true, the final instalment of *First Edition* is here. You've learnt how to put together your magazine – now all you've got to sort out is the little matter of printing and distribution, as STEVE WILLIAMS explains...

So here we are at last (*yes, we've done that bit*), the final part of *First Edition*. Having followed all the hints and tips laid before you in this series of articles you must now have in front of you a copy of your very first amateur magazine (I hate that silly word "fanzine.") So this is what they mean by bliss? What a feeling of achievement. The end of the road at last?

Well not quite, there's still a little bit more to be done yet. At the moment you only have one "master" copy of your magazine. How are you going to get lots of people to read it? Errmmm... good question.

Well you could invite all your subscribers to come round to your house and read it, but that's a bit of a long-winded way of doing it and your Mum might not be too chuffed about having a load of strangers turning up on her doorstep every month.

It might be a slightly more sensible idea to get a few copies made and send them to your subcribers' houses instead.

These final two parts of the publishing equation are called "Printing" and "Distribution." Believe it or not, negotiating these final two hurdles is harder than anything previously covered in this series. Well you wouldn't expect it to be easy, would you? No, of course not, otherwise we'd all be successful and digustingly wealthy magazine publishers, just like Future Publishing.

Printing

The first thing to note about getting copies of your magazine printed is that... you don't. Nope, unless you are going to be turning out large numbers of the magazine it is not economically viable to go to a printing works.

Don't panic!

This is great stuff. An article about printing and distribution that starts off by telling you that you can't afford to *get* your creation printed. So how can you get some copies made, thereby sparing your mother some unsolicited and unnecessary house guests? By photocopying, it that's how!

Yes, I know that getting stuff photocopied in a High Street shop is tear jerkingly expensive (10p per A4 sheet? *Ouch!*), but you don't have to get it done there. Think about it for a minute – you must know someone who has access to a photocopier. What about your Mum? Yes! There is a photocopier in her office at work. Perhaps she might have a word with her boss about using it for your copying. Don't forget to remind her what the alternative is.

As a last resort you could ask around the High Street shops and see if you can get a good price. A very good price for double sided A4 photocopying is around 4p per sheet... Well, there's no harm in asking.

Collating the mag

This is a goody. Collation is the name given to the process of putting the newly-photocopied pages of the magazine in the correct numerical order and then stapling (or sticking) them together. It sounds a fairly innocuous task but it can prove to be as boring as being forced to listen to Vogon poetry.

● **The best possible scenario could be:** You have just returned from your local photocopier clutching the six copies of the first 8-page issue of your magazine (that's 48 pages of hot, steaming A4.) You have to turn these 48 sheets into six sensibly sequentially ordered issues of your first magazine. Fortunately, you have opted to use an A4 magazine format using single-sided photocopying. You intend to stack the issue's pages in numerical order and then staple them together on the left-hand margin.

Easy peasy lemon squeezey! It will take you twenty minutes at the most. Collation, a problem? More like a piece of cake.

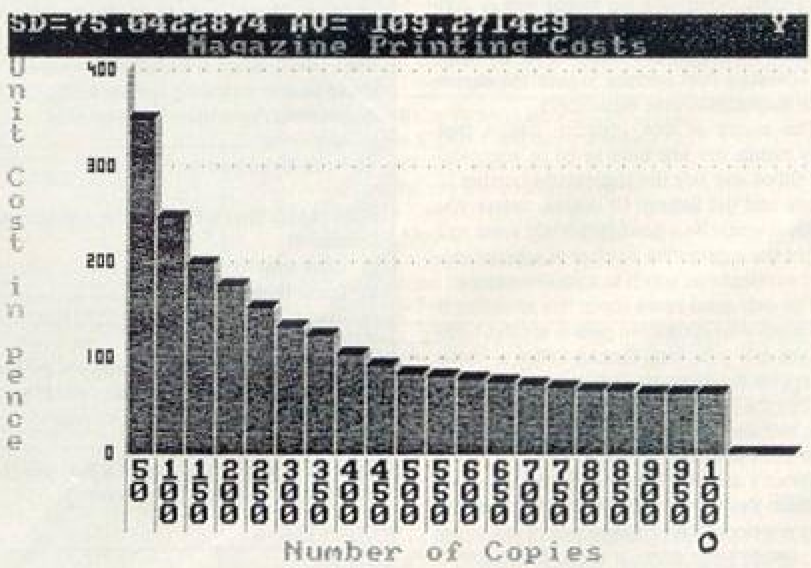
● **The worst possible scenario could be:** You have just returned from your local photocopier clutching the six hundred copies of the first 40-page issue of your magazine (that's 6,000 pages of hot, steaming A5.)

Unfortunately, you have opted to use an A4 magazine format using double-sided photocopying on A5 sheets, folded in two and stapled together in the centre (known as saddle stitching) in the same way that this issue of *Amstrad Action* is presented.

You have to turn this pile of gently steaming sheets into six hundred sensibly sequentially ordered issues of your first magazine... You've gotta talk nicely to your Mum, cos she's going to have to write a note so's you can have at least a day off school.

Printing costs

Getting your magazine printed by a printing works is the ultimate method of duplication, but the cost is dependant upon the number of



●Stunningly simple but massively addictive

copies that you want made (or, if you want the technical term, "the size of the print run"). The general rule to remember is that the greater the number of copies you, order the cheaper the unit cost will be.

For example, having made some enquiries, I found that one firm quoted a price of £172 to do a print run of 50 copies of a 40-page magazine. This means that it costs you £3.45 for each copy. If you want 100 copies the cost is £244, which means the unit cost has dropped to £2.44 to produce. When you get to ordering 500 copies the cost is £396 and the unit cost has dropped to 79 pence, and by the time you are asking for a thousand copies, the unit cost is only 60 pence each and the overall bill will be £600.

Photocopying the same 40-page magazine would cost 76 pence per unit regardless of whether you ordered 50 or 1000. With the aid of a tattered bit of graph paper, a slide rule and an old O-level maths text book I have been able to predict that getting your magazine printed would only make economic sense when your print run increased to around 500 copies.

Having said all this, there are several great advantages of going to a printing works...

1) They have a machine that can collate and staple the mag for you automatically. Deeply marvellous news if your print run is anything over 100 copies.

2) The quality of the final reproduction is of a higher standard (and is more consistent) than that produced by photocopying.

3) If you have to resort to printing you can at least pat yourself on the back because your magazine is well on the way to becoming "Well Wicked" (with a capital Whuhh!)

Distribution

Once again this aspect of producing a magazine is one that you won't encounter until your circulation figures become quite large (why are they paying me to write about Printing and Distribution when all I am telling you is that you can't do either?)

In the meantime, you will have to rely upon Her Majesty's Post Persons to take the copies of the magazine to your subscribers.

The reality of this situation means that every month you will have to go to your local Post Office and buy the appropriate number of stamps and get licking. Of course, before you do this it would be a good idea if you went and bought the appropriate number of appropriate-sized envelopes on which to stick the stamps.

The only good news about this situation is that when your circulation gets to around 1,000 you can ask your local Sorting Office to come and collect the envelopes when they are ready. You pay the Post Office a cheque for the equivalent number of stamps, and they take them away and frank them for you.

Doesn't sound a lot of help, but consider the facts. Even if you could lick'n'stick a stamp on an envelope at an average rate of one every five seconds (very quick) it would take you one hour 23 and half minutes to complete 1,000 envelopes.

A word of warning, here. If your circulation figure is fairly large then don't buy your envelopes from a retail outlet. Get them from a stationery wholesale dealer instead. Pick up your local copy of Yellow Pages and find the nearest one, go and see them, tell them what you are doing and explain that you want to "buy" at "trade" prices.

Point out to them that if your magazine really does take off in a big way, you will (of course) still be buying your envelopes from them (in business, loyalty is always an invaluable bargaining tool.)

The end bit

That wraps up this series about producing your own magazine. When you have made your first million in publishing contact me, via Amstrad Action. I'll expect to be taken out for a drink at least.

WIN THAT PRINTER!

Remember that horribly desirable Mannesmann Tally MT-222 printer we told you about way back in *AA49*? That's right, the one we were going to give away to the author/s of the best fanzine sent to us after the end of the *First Edition* series.

Well that time has come, so here's where we remind you what you have to do to win this stonking printer. But first, let's just drool over the prize's specs...

- **24-pin quality**
- **220 cps in draft mode**
- **72 cps in letter-quality mode**
- **swaps between single-sheet and continuous stationery at a keystroke**
- **it's worth £750!**

OK, that's got your mouths watering. Now it's time to answer those little questions we've been asking you each instalment.

Part 1 (*AA48*): Who was the author of the first four instalments of *First Edition*?
a) Pat McDonald ....
b) Adam Peters ....
c) Jeffrey Davy ....

Part 2 (*AA49*): According to this edition, who was on the cover of *AA* the month before?
a) Bros ....
b) An alien from outer space ....
c) Trenton Webb ....

Part 3 (*AA50*): Which of the following is a well-known desktop publishing package for the CPC?
a) Industrial Flocculation Plant Simulator ....
b) Stop Press ....
c) Battle Ninjas from the Planet Zog ....

Part 4 (*AA52*): What is the subject of this month's instalment?
a) Paper recycling ....
b) Indoor fishkeeping ....
c) Layout ....

Simply put a tick next to the answers *you* think are the right ones. OK? Now just to keep you on your toes, we've got one last question for you:

Give us one good reason why we should give *you* the MT-222 and not keep it for ourselves?

....

....

– and boy, that one's going to be tough!

Now then, this is the serious bit. If you've been following the series you'll have picked up the combined wisdom of some of the greatest publishing intellects in the world... to the point where you should be able to design and manufacture your own fanzine.

Yup, we want you to send in your own publications. It doesn't matter whether they've been put together following the suggestions in the series, or whether you've been DTP-in for years. Just so long as the magazine has been put together on a CPC. All the magazines entered will be passed to an independent judge who will rate them according to their design, writing, originality – even the age of the author.

Which brings us to all those important little personal details:

Name ....

Address ....

....

....

Telephone number ....

Age ....

You're going to get until July 31st to design and submit your own fanzine. OK? And once you've done that, send it to us, enclosing this entry form (or a photocopy) and you too could win our fabulous £750 MT-222 printer. Right then, you can start... wait for it!... you can start... *NOW!*



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AA Buyers Guide

This is the place to find what software and hardware is available for your CPC. We list programs by category, and provide producer; phone number; price; issue in which the item was reviewed; and last but not least, a brief description of the program's features and, where appropriate, shortcomings.

But don't take our word for it: if you're in doubt read the original review before you splash out, and make sure by asking the person you're buying from that it meets your particular needs. Best of all is a try-out, if you can find a friend who has what you're thinking of buying.

WORD PROCESSING

Brunword

Brunning Software ☎ 0245 252854
£30.00 (6128) disk, £25 (464) disk ● AA24
Complete word processor package with spelling checker, 30 000 word dictionary and card filing programme. Spell checker and dictionary loaded with the main programme. 40, 80 and 128 column screen modes and fast screen response. Tutotrial file makes learning the system easy.

Tasword

Tasman Software ☎ 0532 4388301
464, 464D, 6128, £19.95 tape, £24.95 disk ● AA1
464 is the tape based version (the same as Amsword). 464D has enhancements for a disk drive. 6128 makes full use of a 6128's extra memory. The latter pair include mailmerge facility. Easy to get to know: comprehensive help screens. Screen operations are slow, but may be customised for greater speed.



Protext

Arnor ☎ 0733 68909
£19.95 tape, £26.95 disk, £39.95 ROM ● AA3
Lightning fast on all tasks involving screen. True merging from separate files and disks to the cursor position is easy, and Protext supports standard CPC RSX's like DISC, TAPE, CAT etc. ROM version is excellent. Bad points: maximum file space limited to machine memory – about 22K on disk, 38K for the ROM version. As used by AA, if that's any recommendation (don't answer that).

PRINTERS

Manufacturers' recommended retail prices are listed as guidelines, but heavy discounts are offered by retailers. Printers require an additional lead for connection to the CPC. You'll need an Amsoft PL-1, which should be available from your local computer stockist.

Citizen 120D

☎ 0800 282692
£199 + VAT ● AA43
Dimensions: 3.7 kgs, and 370mm x 90mm x 238mm. Draft quality is 'dotty,' and poor, but NLQ is sharp and simple. A quiet beast, with cable to the computer connected on the side. Manual includes a complete written breakdown of all the printer control commands, and their effects.

Panasonic KXP1081

☎ 0753 73181
£219 +VAT ● AA29
Similar to DMP2000/2160: chunky, 9 pins, 10 inch carriage and compatible with Epson codes. Thorough A4 manual, good NLQ mode – better than DMP – and condensed, draft and NLQ modes.



Mannesmann Tally MT81

☎ 0734 788711
£149 + VAT ● AA43
Dimensions: 70mm x 100mm x 265mm; weight, 4.5 kgs. Prints Epson and IBM graphics. Draft mode print quality is good: square printhead pins put ink onto greater areas. The printed output is more ornate than the Citizen. Manual is superb, but falls down in failing to explain control codes: for that you have to buy the applications manual. Certainly a very good buy.

Star LC-10

☎ 0494 471111
£199/259 + VAT ● AA32
First price is for standard dot matrix printer. Fonts selected by button, rather than typing in fiddly control code. Second price is for relatively inexpensive colour model. Uses multi-colour ribbon to produce different mixes, though there are currently no commercial programs to take advantage of this capability.

Star LC 24-10

☎ 0494 471111
£299 + VAT ● AA47
A low-cost 24 pin, 10 inch, 80 column Letter Quality printer: 8 resident fonts, all operable from the front control panel and 3 print variations.

INTERGRATED PACKAGES

Info-Script

Brunning ☎ 0245 252854
£50 disk ● 128K only ● AA35
Billed as the "complete database with word-processor and spelling checker," it's best with 256K. Well set up, easy to use and allows for changes in layout and content. Recently 'supercharged'.

Mini Office II

Database ☎ 0625 878888
£14.95 tape, £19.95 disk ● AA6
Astonishingly cheap word processor, database, spreadsheet, graphics, comms and label printer all-in-one, it's continued to sell, and sell, and sell... Not full specification, but at this price who's complaining?



Protext Filer/Office

Arnor ☎ 0733 68909
£24.95/£34.95 disk ● AA34
Database that works comfortably with Protext, has powerful sorting options and comprehensive invoice printer. Can be slow, but good value.

EDUCATIONAL PROGRAMS

Amstrad Selection

Fernleaf Education ☎ 0474 359037
£25.95 disk/tape ● AA32
For age range 7 to 12+: Seven programs – including Fletcher's Castle, Market Stall, The Perfume Hunter, The Raiders, Ferry Captain, Treasure, and Thorn Sea.

Arc Master Pack Plus

Arc Education ☎ 0472 812226
£48 disk ● AA32
A massive pack of 90 programs: Junior; Primary; a parent/child adventure; DR Logo and word games. Each set available at £10 tape and £12.50 disk. Well presented with good graphics, reasonable musical ditties and plenty of options.

Kosmos

Kosmos ☎ 05255 3942
£9.95 tape, £13.95 disk ● AA32
Answer Back Junior Quiz lets you either answer the question; make a choice from a number of options; or say whether something is true or false. There's also Factfile 500, sets of additional questions for the program: arithmetic, spelling, sport and natural history.

The other range from Kosmos: vocabulary tutors in French, Spanish, German and Italian.

Funschool 2

Database Software ☎ 0625 878888
£9.95 tape, £14.95 disk ● AA43
So rare is it that educational software gets into the charts that it made the news pages of the weekly computer press. Actually there are three great packages here: under sixes, six to eights and over eights.



Play School

School Software ☎ 010 353 6149477
£9.95 tape, £14.95 disk ● AA32
Six different utilities including Counting, Find It, Paintbox, Shapes, Match-up and How Much? Paintbox is the best. Other programs in the range are also worth a look, including Biology, Chemistry and Physics for older students.

Wordhang

Bourne Education ☎ 0794 523301
£9.95 tape; £14.95 disk ● AA32
One of Bourne's range of ten programs. Others include Happy Letters, Numbers and Writing (all Infant); Timeman One/Two and Map Rally (all Junior); and the excellent Chemistry and Physics Revision (Senior).

BUSINESS / ACCOUNTS

Protext Office

Arnor ☎ 0733 68909
£34.95 ● CPM+, 6128 only ● AA34
Requires Protext and Promerge to run. Information inputted using Protext. Mail merge templates included, and very well implemented invoice printing feature. A genuinely useful business system.

SD Microsystems range

SD Microsystems ☎ 0462 422897
General Ledger ● £19.95 ● AA32 Souped up 6128 version £29.95
Small Traders Pack/Invoicer ● £29.95 ● AA26
Stock Accounting System ● £39.95 ● 6128 only ● AA32
SD Microsystems have a range of quality small business systems. Consult original reviews for in-depth explanations of what each does and how it differs from the others – or better still, ring them and ask.

DATABASES

Masterfile III

Campbell Systems ☎ 0378 77762
£39.95 CPM + ● AA30
With parent/child records – enabling tying together of records, saving space and time. Screen layouts and reports menu selected; not for faint hearts, but good results.

AtLast Plus

Rational Solutions ☎ 056681 511
£39.95 ● CPM+,128k machines only ● AA30
Powerful: developed into user's requirements. Data capacity restricted only by disk size, and splitting fields into smaller elements possible. Printed output impressive. Beefy processing.



Random Access Database

Minerva Systems ☎ 0392 437756
£29.95 disk ● AA6
40 or 80 column screen. Good mathematical and string operations . Random disk accessing gives speed and power.
1 See also Info-Script in '4. Integrated Packages'

SPREADSHEETS

Mastercalc 128

Campbell Systems ☎ 0378 77762
£33 disk ● 128K machines ● AA4
Can show two parts of spreadsheet at once. Includes notepad and calculator. Easy to use, but the mathematical formulae can only consist of the four basic arithmetic options. Slows down as more data is entered.

Matrix

Audiogenic Software ☎ 01 861 1166
£34.95 disk ● AA18
Uses disk to store data – so good capacity on the plus side, poor speed on the minus side. Graphic options excellent. Onscreen prompts rare, making it hard at first. Calculating power good.

Supercalc II

Amsoft/Sorcim ☎ 0277 230222
£49.95 CPM + ● AA4
First class documentation. Calculations can be determinative – performed on whether or not cell's contents match given value. Excellent help prompts and arithmetic functions.

Cracker

Newstar Software ☎ 245 265017
£49.00 disk CPM + ● AA9
Spreadsheets must be created from scratch. Documentation good, command sequences soon learned. Mathematical functions well done, with random numbers catered for. Files limited to 17K – and formulae programming not well implemented.

SOUND

Amdrum

Cheetah ☎ 0222 555525
£34.95 ● AA13
Digital drum machine. Editor comprehensive. Not Midi compatible: to hear output you plug it into amplifier.

DHCP Midi Interface

DHCP ☎ 0440 61207
£69.95 interface, £34.95+ disk s'ware ● AA33
DHCP produce Midi software for various Midi interfaces for CPC, which are incompatible with each other.

Midi Interface

Silicon Systems ☎ 061 848 8959
£59.95 interface, £59.95 software ● AA26
Useless alone, but software you can use with it – DX7, FB01, MT32, D50 and CZ101 – is diverse. Software prices vary, and lack presentation of EMR sequencer. High performance.

Miditrack Performer

EMR ☎ 0702 335747
£49.95 interface, £79.90/£89.90 tape/disk s'ware ● AA13
Midi interface plus sequencing software to drive Midi equipped instruments. Records each instrument then plays them all at once. Onscreen layout similar to multi-track recorder. Excellent.

Ram Music Machine

RAM Electronics (Datel) ☎ 782 744707
£49.99 tape, £59.99 disk ● AA17
All in one music package: Midi interface, sound sampler and music editor. Sampler can handle one sample of just over a second. Midi controller software and music editor comprehensive. No through port, though, so 464 users must use tape version. And you can't edit live played Midi compositions.

Sound Blaster

Siren Software ☎ 061 228 1831
£34.99 ● AA23
Amplifier and pair of loudspeakers that plug into CPC for maximum 2 watts sound effects.

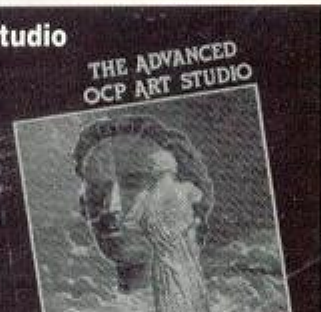
Foundation Step-Time Sequencer

Foundation Software ☎ 0252 543945
£34.95 disk
Quite simply the only step-time sequencer you can buy for your CPC.

VISION

Advanced Art Studio

EEC ☎ 0753 888866
£24.95 disk ● AA21
Recently revitalised, this is the user-friendly, best and most powerful art package: works in all three modes. Can cycle through inks, and cut and paste different areas, transformations and reflections. Fill routines in coloured patterns needs 128k memory. Available as a standard version for £15.95.



AMX Art

Database ☎ 0625 878888
£69.95 disk (includes mouse) ● AA7
User friendly, if little unsophisticated compared

EDUCATION

FREE Catalogue Amstrad CPC, PCW, PC1512, Commodore, BBC, IBM PC, Atari ST
Amstrad PCW - Business Software, School Admin. PC. 24 Hr. Visa/Access Hotline. Ring UK 010353 - 6149477 (Office Hours) (Irl. 061 - 27994) 010 353 - 6145399 (UK 24 Hr.)

MAXI-MATHS
Amstrad PC, IBM PC, Amstrad 464, 664, 6128.
1. Triangles. 2. Angles. 3. Sin Cos Tan. 4. Rectangles. 5. Circles.
A highly interactive program such as Basic Geometry provides a very stimulating learning environment.

MAGIC MATHS (age 4-8)
CBM 64, All Amstrads, IBM PC, Atari ST
Additions and Subraction. "A serious challenger to similar BBC programs and a good example of its type." Primary Teaching and Micros UK.

MATHS MANIA (age 8-12)
All Amstrad/CBM 64/IBM PC/Atari ST
Multiplication and Division. "It appeals to the age group. My son has been sneaking downstairs before breakfast to play." BBC CEEFAX review.

BETTER SPELLING (age 8-adult)
All Amstrads/CBM 64/BBC/IBM PC/Atari ST
"Well Organised Lessons. Educationally it is very strong." 8000 Plus

BETTER MATHS (age 12-16)
All Amstrads/CBM 64/BBC/IBM PC
Rated in the top five in Amstrad Action educational survey.

CHEMISTRY (age 12-16)
All Amstrads/CBM 64/BBC/IBM PC
Very ambitious in terms of the range of topics. High standard of questions." 8000 Plus.

BIOLOGY (age 12-16)
All Amstrads/CBM 64/BBC/IBM PC
"A very good excuse to play with your computer and have fun while revising." Your Computer.
Mapwork Quiz (9-Adult) CPC, BBC, CBM 64
The Three Bears (5-10) CPC & PC
Physics (12-16) CPC/PCW/PC
School Administration PC1512/IBM CPC & PCW Disks £16.95
PC Disks £22.95
Cassettes £10.95
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School Software
Tait Business Centre, Dept A, Dominick Street, Limerick, Ireland
Tel: (UK) 010-353-61 49477 (IRL. 061-27994)

MATHS MANIA
Biology 1
SCHOOL SOFTWARE
BETTER SPELLING
Physics 1
SCHOOL SOFTWARE
MAGIC MATHS

STRATEGY SOFTWARE
Strategy games for the Amstrad CPC

BATTLE OF THE BULGE - is a simulation of the last major German offensive in the west when they attacked the allied forces. The options are 1 or 2 players with over 140 units involved. The types of units are corps, infantry, motorised infantry, armoured, anti-tank, artillery and cities. The size of these are divisions and Regiments and have ratings for strength, quality, provisions, fuel and moves. There are also different weather conditions, supply and air phase, save game and a detailed manual. All of this is set on a scrolling map which has different terrain. Map size is 40 x 40.
OPERATION BARBAROSSA - simulation of the war between Germany and the Soviet Union which started on June 22, 1941. There are four different armies which are German, Rumanian, Finnish which represents the Axis; and against these are the Soviets. Options are 1 or 2 players. There are over 130 units. Unit types are infantry, motorised infantry, corps, armoured and cities. Ratings for strength, quality, supplies, fuel. Each turn represents one week with four seasons, summer, autumn, winter, spring. Air phase, Supply phase and Winter phase. Save game. Detailed manual. All of this is set on a scrolling map which is 40 x 47 and covers the Eastern Front from Warsaw to Stalingrad and from Helsinki to Bucharest. Terrain features are sea, rivers, mountains, marshes, cities.
CANNAE 216 BC - is a battle between the Carthaginians and Romans in Southern Italy in August 216BC. Options are 1 or 2 players with 50 units involved. Types of units are light infantry, heavy infantry, light cavalry and heavy cavalry. These have different ratings for strength, quality, morale, fatigue and moves. Each turn represents one hour. All of this is set on a scrolling map which has different types of terrain and is 25 x 27. Also save game option and a detailed manual.
THE FINAL CONFLICT - conflict between Nato and the Warsaw pact in Europe.
SOCCER 6128 - football strategy game manage any team in the four divisions.
KURSK THE CLASH OF ARMOUR - WW2 battle between the German and Soviet armies.
SOFTWARE HIRE CLUB - we hire out games. Send large S.A.E. for details.

BATTLE OF THE BULGE	£8.00 (disk)	£7.00 (tape)	
OPERATION BARBAROSSA	£8.00 (disk)	£7.00 (tape)	
CANNAE 216 BC	£8.00 (disk)	£7.00 (tape)	Disk not available
THE FINAL CONFLICT	£8.00 (disk)	£7.00 (tape)	for 464 diskdrive
SOCCER 6128 For 6128 only	£8.00 (disk)		
KURSK the clash of armour	£9.00 (disk)	£7.00 (tape)	

State machine type. Add 60p outside UK or £1.60 outside Europe per game.
Cheques or Postal Orders Payable to **STRATEGY SOFTWARE**
Send to - **STRATEGY SOFTWARE (AA), 32 ALBERT STREET, SEAHAM, CO DURHAM, SR7 7LJ.**

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Smogware Systems

Smog

BETTER BASIC
Additional commands (RSXs) painlessly

RSX - LIB (1.0)
The RSX library utility

'Everything to manipulate RSXs and enable them to be used in an easy systematic manner is here.' **ACU Dec 89.**
'Great if you program in any way shape or form...makes creating RSXs a dream' **AA Dec 89**

Extend the power and versatility of your CPC's BASIC - now!

RSX-LIB is a complete RSX management system, not just a collection of RSX's:

- Access to machine code routines scattered across many files and discs for ultimate use as RSXs (bar commands).
- Centralised functional documentation of all your routines (an RSX database, in effect, but much more!).
- Storage of all routines on disc in a single form (as non-RSX code).
- Automatic conversion of RSX code to non-RSX code - split out the code for each RSX, and (selectively) save to disc.
- Builds RSX files from the non-RSX code at the touch of a few buttons - a LOAD and a CALL is all you need to install your new BASIC commands!
- RSX files only contain the RSXs you require (saving valuable memory) and are free standing (you don't need RSX-LIB in memory to run them).
- All RSX-LIBs RSX files can be placed anywhere in memory. RSX-LIB can alter code at run-time to suit the current location - even code which is not normally relocatable! As far as we know, only RSX-LIB can do this!!
- Eliminates problems with routines requiring the same area of memory.
- Intelligent disc handling - RSX-LIB knows which disc you have in the drive, which you need next, and prompts for a change if required.
- Automatic saving of the library after a set number of changes to it.
- Free 'starter pack' of 52 varied RSXs in RSX-LIB's library.
- You can add your own code (or magazine type-ins) to the library, and create your own customised collection of routines. Just dip in when you need that extra command - you'll wonder how you ever did without!
- Really simple to use - no machine code knowledge required!
- All functions accessed from RSX-LIBs menu screen.
- Comprehensive and friendly manual, explaining RSX-LIBs functions and documenting the 52 RSXs supplied.
- Example program showing the use of the 'starter pack' RSXs.

RSX-LIB is suitable for all CPC machines, but is supplied on DISC ONLY.

Orders generally sent by return. Send cheques (£ sterling)/UK P.O.s for **£19.95** (Europe: Add £1.50, Rest Of World: Add £2.00) or at embossed credit card details (24 hour order line **0603 749132**) to:
Smogware Systems, Dept AA, 20 Grove Avenue, New Costessey, Norwich. NR5 0HN.

MEGA MIX

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TOTAL	

All items include first class postage. Overseas orders add £1.50 per item, outside Europe add £5.00 per item. Send SAE for full list.
For fast despatch send cheque/PO to:- **MEGA MIX SOFTWARE, (DEPT AA1), 46 ASHDEN WALK, TONBRIDGE, KENT TN10 3RL.**

to Advanced Art Studio, but mouse helps greatly. Colour, spraycans, textures, circles and host of other features.

Cherry Paint

Siren Software ☎ 061 228 1831
£9.99 disk ● AA20
WIMP controlled – ie mouse moves pointer to various icons to pull-down menus. B/W mode 2 only, but fun. Curves are difficult, but this is a bargain.

CRL Image System

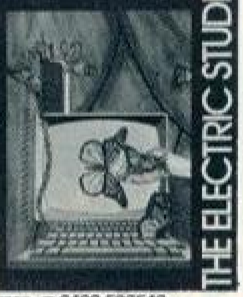
CRL ☎ 01 533 2918
£19.95 tape, 24.95 disk ● AA12
Boasts range of picture manipulations and distortions, but lacks art options. Best on finished pictures – like a mini Quantel box.

DART Scanner

Dart Electronics ☎ 0502 513707
£79.95 ● AA22
Attach reading device to your DMP2000, 3000 or 3160. Feed in picture to printer: device reads in picture as B/W image. Quality onscreen isn't amazing, but it works and it's fun.

Electric Studio Light Pen

Electric Studio ☎ 0462 420222
£19.95 cass, £29.95 disk ● AA1
Excellent drawing software, including rubber-banding shapes and lines, filling areas, spray-can etc. Accepts software written for it.



The Informer

Treasure Island Software ☎ 0492 593549
£29 disk ● AA33
For creating animated displays, suitable for classroom and shop window: takes text, graphics and animated displays and produces slide show. Works best, but not only, with Parrotry Plus (see below).

Parrotry Plus

Treasure Island Software ☎ 0492 593549
£19.95 disk● AA30
Rather than lots of effects used anywhere and at any time, Parrotry Plus 'remembers' every alteration and plays through the list to create animation. Note: can't dump pictures to printer without external program.

Vidi Digitizer

Rombo Productions ☎ 0506 414631
£89.95 ● AA15
Grabs picture from video recorder or camera and puts it on CPC screen, allowing you to alter it with an art package. Easy to use. Software on tape, disk or ROM includes superb printer dump routine.

DESK TOP PUBLISHING

AMX STOP PRESS

Database ☎ 0625 878888
£79.95 disk. 128K only
The Desk Top Publishing package for the CPC. Expensive but the price includes a mouse. A very powerful package that offers features that you'd find on many of the vastly more expensive Apple Macintosh DTP packages. If you're serious about DTP then consider no other.

Page Publisher

SD Microsystems ☎ 0462 422897
£24.95 disk £19.95 tape 128K only AA45
If you can't afford *Stop Press*, then *Page Publisher* is the second best option. Quicker and easier to use than *Stop Press*, but has fewer features. The package to use for DTP on a budget.

UTILITES

The utilities in this section that offer the facility of BACKING UP disks and files should be used only for that purpose. They are not designed to be used to pirate software, and anyone who uses these products for that purpose is breaking the law.

Nirvana

Goldmark Systems ☎ 0707 271529
£15 disk, £26 ROM AA51
Excellent disk utility that allows you to copy files and disks with ease. Uses all the computers memory to minimise disk swapping. Includes disk editor and powerful archiving software that allows you to back up entire disks to tape - rather like a tape streamer on business computers. Once you have used Nirvana then you'll never go back to using CP/M to copy files again!

Multiface II

Romantic Robot ☎ 01 200 8870 ● £47.95
Extremely popular dongle that allows you to freeze software in its tracks. You can save entire memory to disk or tape. Very useful for cheats - you can save a game when you finish a level and always continue from that point. Memory can be examined and altered, so it's handy for hunting out those extra lives.



Hackitt

Siren Software ☎ 061 228 1831
£34.99 ● AA52
Similar in operation to the Multiface, but aimed at the more dedicated hacker. Has a built in mini assembler and lots of useful hacking utilities. Not really suitable for the novice as a working knowledge of machine code is required.

RSX-LIB

Smogware Systems ☎ 0603 749132
£19.95 disk ● AA51
A neat piece of software that allows you to compile a library of RSXs from machine code routines. It can re-locate machine code and automatically set up RSX tables, making it ideal for compiling custom designed extended BASICs.

JOYSTICKS

Speedking

Konix ☎ 0495 350101 ● £ 11.95
Strangely shaped joystick moulded to fit in your hand. People tend to be polarized in their opinions about this one - they either love it or hate it. Design makes it not much use for left handed people.

Competition Pro

Dynamics ☎ 061 626 7222
● £14.95, £15.95
Old favorite joystick which many people favour. Sturdy and well built microswitch design that will out-last years of waggling. Trendy see-through version available for a pound extra.

Navigator

Konix ☎ 0495 35010 ● £14.99
Handheld joystick that follows Konix's usual strange design convention. The stick is held at the bottom with the control lever on top. Comfortable, once you get used to it.

Quickshot Turbo

Spectravideo ☎ 0235 555455 ● £10.95
The best of the 'Aircraft' style joysticks. The fire button is on the 'yoke' itself, making it a favourite for shoot 'em ups. At its best when used stuck to a desk with its suction pads.

COMMS

Micronet starter pack.

☎ 0800 200 700 ● £138
Contains all you need to get started in comms, including a years subscription to Micronet. The Modem is a very basic model, but the overall package is great value for money.

Pace Linnet

☎ 0274 488211 ● £174.80
Medium priced Hayes compatible modem that offers good features at a reasonable price. Supports the V21 and V23 standards, which should cater for most peoples needs.

Amstrad SM2400

☎ 0279 454555 ● £286.35
Expensive, but everything that you're ever likely to need in a modem. Auto-everything, supporting V21/22/22bis/23 baud rates and both pulse and tone dialing, this hayes compatible modem is a top notch product.

DISK DRIVES

DD-1

Amstrad ☎ 0279 454555 ● £149.95
Essential for 464 owners who want to upgrade to using a disk system. The package includes an interface that contains the disk operating system, and an FD-1 Disk drive.

FD-1

Amstrad ☎ 0279 454555 ● £99.95
Second 3 inch drive to add to your system. Two drives are more convenient for data transfer between disks, and improve the user-friendliness of certain programs.

3.5 inch second drive

Siren Software ☎ 061 228 1831
● £109.99 - £119.99
High capacity second drive that can store 800K of data on a single 3.5 inch disk. Owners of the 464 must already have a DD-1 in order for it to work on their machine. The standard disk operating system cannot make full use of the extra capacity of the drive, and an extended operating system is needed. The price depends on whether the new DOS is on Disc or ROM, the latter, naturally, being the more expensive.

AA57 is due out on May the 17th. What if your newsagent sells the lot before you get there? RESERVE ONE NOW!

AAfterthought

"Que diable allait-faire dans cette gallere?"

While Trenton was over in France, he took time out to speak to French premier François Mitterand about the future of the CPC...

Monsieur Mitterand, first of all, do you have an Amstrad CPC?

Mais non, pourquoi? [Yes, yes I do.]

And what is your favourite game?

Alors, qui est cet homme? [I like many games.]

Yes, but do you have one particular favourite?

Je suis le premier de la France. Je ne suis pas un jeune spotty garçon. [*Captain Blood* is very good.]

And what do you think of Amstrad Action magazine, Monsieur Mitterand?

Je ne sais pas. Les magazins Anglaise sont all Greek à moi. [I read every word.]

And what is your favourite part of the magazine?

Non. Je refuse absolutement de parler avec un journalist qui fumer les Marlboros. Ils stink comme un septic bonfire. [I like the *Type-Ins* very much. The reviews are also good. Trenton Webb is a very fine journalist

(*Trenton, are you sure you can translate French? – ed*).

Monsieur Mitterand, one final question – with your connections, can you get hold of any Amstrad 6128 ROMs?

Zut alors – l'homme est fou! Les gendarmes, vite...!

Ah, Monsier Mitterand, do you know the bus times to the airport...?

DON'T BE DISGUSTING...!

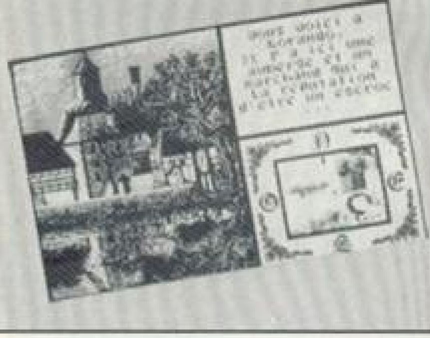
...or you won't win an ultra-chic *Amstrad Action* super de-luxe T-shirt in our special French flavour caption competition.

Just take a look at the picture opposite, and translate that mysterious gothic script into English. Just one clue – it's nothing to do with small vegetables...

And in case your bifocals aren't up to the job, here's what the legend on the screenshot says:

"Vous voici a Korando. Il y a ici une auberge et un marchand qui a la reputation d'etre un escroic..."

Send your answers on a postcard to BILINGUAL SMARTALEC COMPETITION, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2AP. First correct entry received before August 31st 1999 gets the T-Shirt.



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Please reserve me a copy of the June issue of *Amstrad Action*, due out on Thursday 17th May.

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BLOW ME DOWN!

AA can at last reveal the identity of the lucky winner of the absolutely spiffing *Amstrad Action* EPROM competition in the dazzlingly brilliant February issue in which the first prize was a mind-bogglingly superb EPROM programmer and ROM board which... (*get on with it – ed*)

Er, ahem, yes... The winner is none other than Iain Cameron of Moray, Scotland. Well done Iain!

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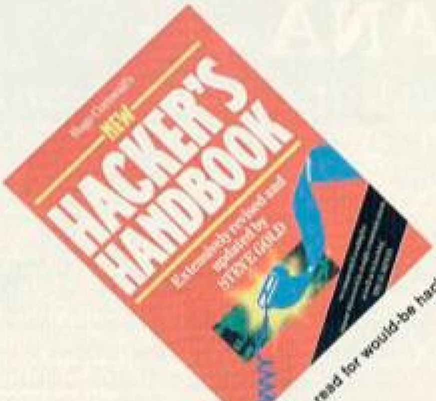
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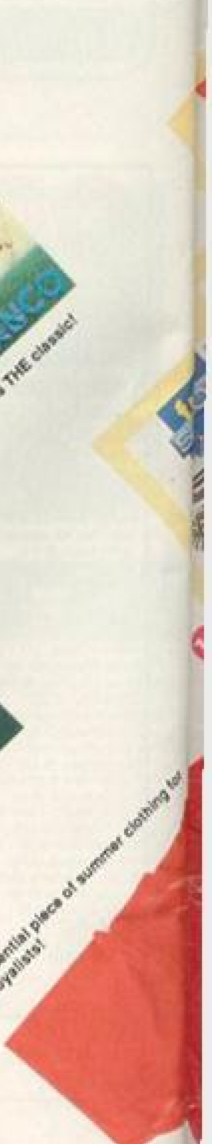
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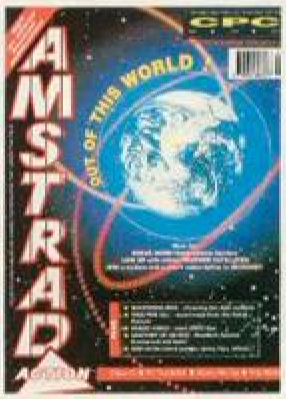


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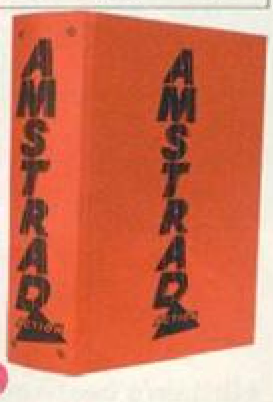


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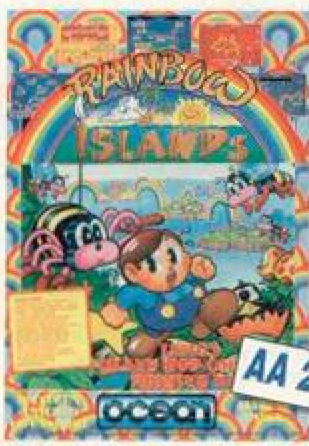


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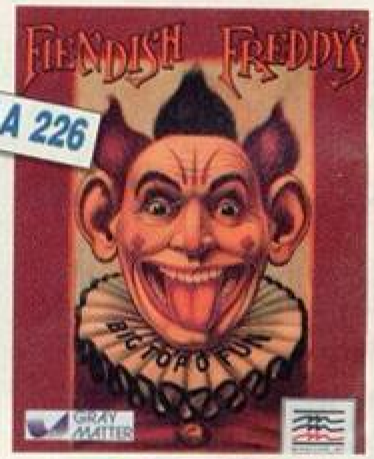
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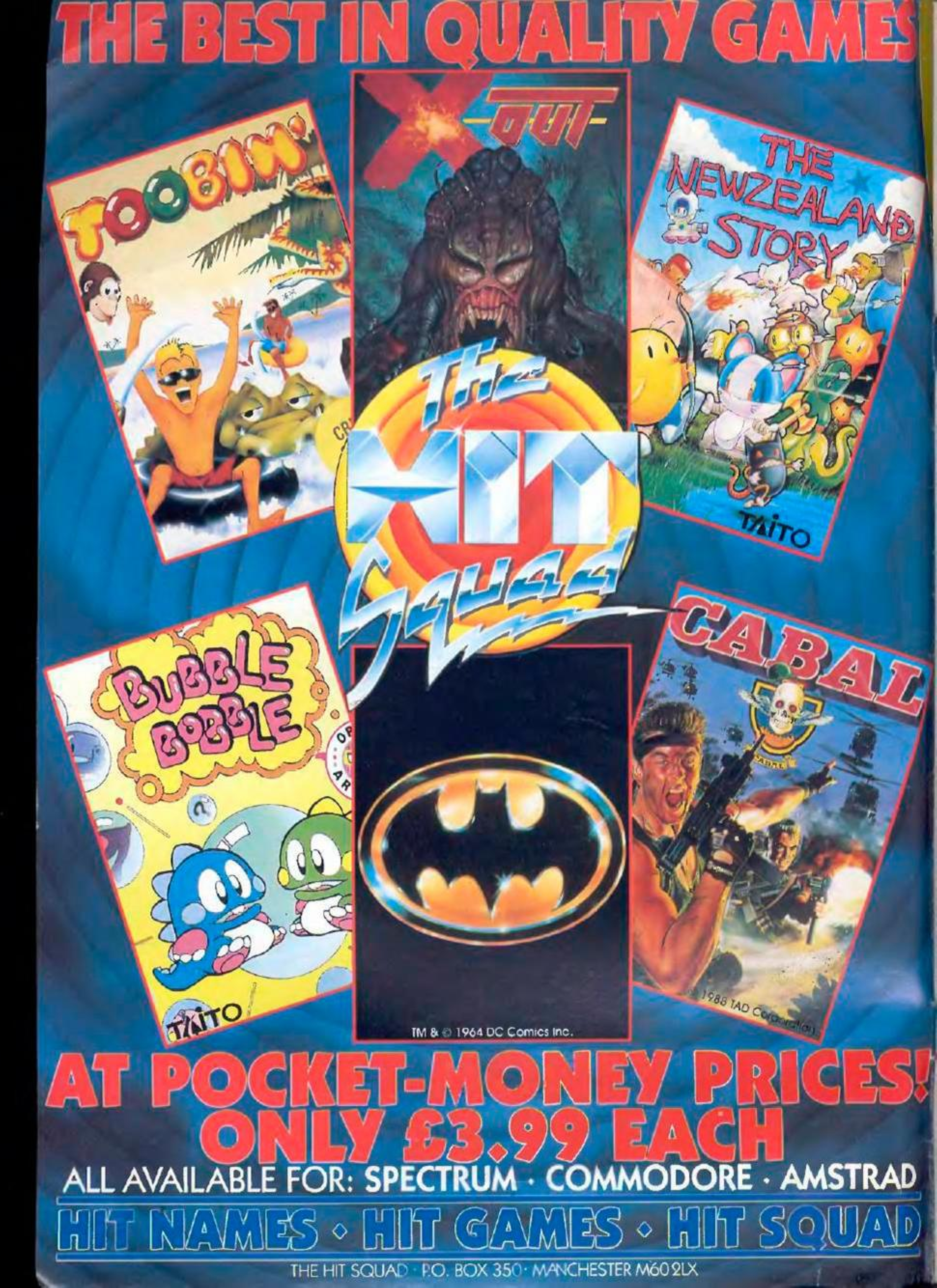
Want a disk version of the AA covertape? No problem! See the tape pages...

POWER UP

Turrican, Rainbow Islands, Chase HQ, Altered Beast and *X-Out* – Ocean's latest compilation boasts four scorchers and a turkey. Find out which is which on page 34

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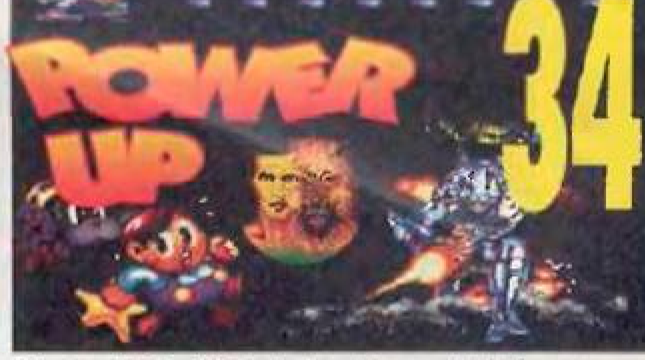
ABC 35,159
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3D CONSTRUCTION KIT



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Domark puts *Freescape* power into *your* hands. Read our special three-page review and walk-through guide



34

Chase HQ, X-Out, Turrican, Rainbow Islands and *Altered Beast* all in one compilation...

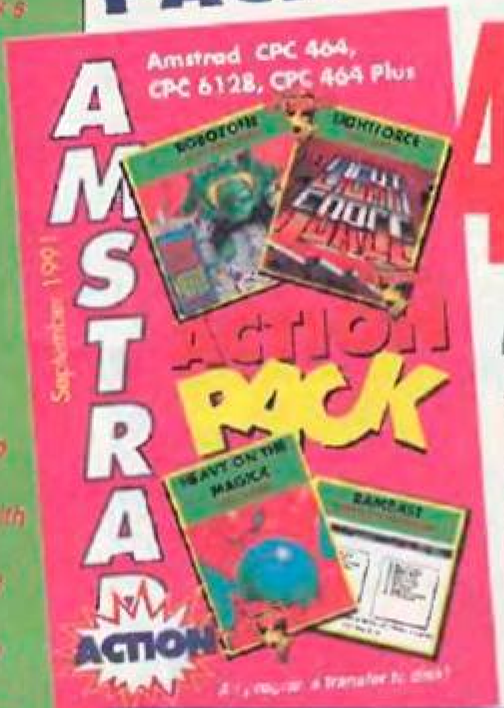
BUILDERLAND



32

Check out this weird – but wonderful – French puzzler...

ACTION PACK

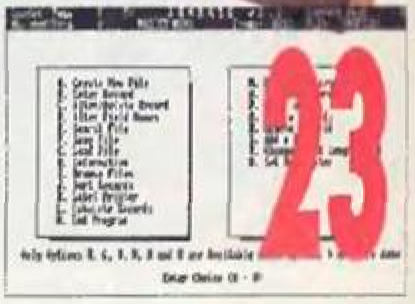


4

Robozone, Lightforce, Heavy on the Magick and a database for both 64K and 128K machines!

THE RAMBASE STORY

RAMBASE (on the covertape) uses the 6128's second bank of RAM to store its data. Author John Fairlie explains how



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MASTERING MACHINE CODE

You got the assembler on last mont's *Action Pack*, now start learning how to program

Future Publishing Limited Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

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ACTION PACK



HOW TO LOAD THE COVERTAPE

Loading the programs couldn't be easier! Type RUN" (followed by RETURN) and press a key to start the tape. (A shortcut way to get RUN" is to hold down CONTROL and tap the small ENTER key.)

A menu screen will appear in a short time. Select the program you wish to load. Press SPACE to highlight the program you want followed by RETURN to load the program. *Robozone*, *Lightforce* and *Heavy on the Magick* are on side one of the tape. The *Datafile* database is on side two. Turn the tape over and rewind to the begining to load this program. (*Rambase II* needs to be loaded from disk.)

Note that Datafile is loaded direcly from BASIC with the RUN" command.

● If you have a disk drive connected to your machine you'll first have to type |TAPE to switch the machine to tape loading rather than disk loading. (The | is obtained by pressing SHIFT and @) The computer will load the next program.



● It's a dirty job, but somebody's got to do it. The city is overrun with alien scum, and it's down to you to tidy up after them.

ROBOZONE

Someone's gonna clean up this town. It's littered with pollution and filth, and we don't mean empty crisp packets and Coke cans. The city's overrun with aliens and mutants. As a cleaning droid, it's your job to get everything neat and tidy again.

You'll need more than a can of Mr Sheen and elbow grease to shift the lot, though. So you're armed with a laser spitting death canon – that should shift the critters. They do fight back, however, and you'll be glad of the power-ups and energy replenishers that 'litter' the complex.

This is just the a single level of Imageworks' game. The full thing should be in the shops next month, so if you finish this demo, you'll know where to go for more.

● *Robozone Controls*

Keyboard or joystick may be used.

Q	Jump
A	Duck
O	Left
P	Right
SPACE	Fire
H	Pause

LIGHTFORCE

Would you believe it? Those aliens are at it again! Once more they're hell-bent on taking over the galaxy. And who's there to stop them? A Squadron of battlecruisers? An elite crack-group of space marines? A lone fighter, piloted by you? Yep, you've guessed it...

Things could be worse, though. You do happen to be at the controls of the most advanced fighter yet devised. You're a *Lightforce* fighter pilot. Those aliens won't know what's hit them.

They've taken control of several planets, and have secured them pretty well with attack craft and ground installations. Get your trigger finger ready – Lightforce is going in!



● Red alert! Those beastly aliens don't know when to stop. Now they've taken over several planets. Looks like a job for muggins (again).

● *Lightforce Controls*

Press K for keyboard or J for Joystick.

When keyboard is selected use the CURSOR KEYS to move and SHIFT for Fire.

HEAVY ON THE MAGICK

Axel the Able just doesn't know when to keep his trap shut. While telling rather tall tales about people he shouldn't, he gets chucked into the most dangerous dungeon he's ever seen.

Which is where we join him. It's your job to get him out. There are three separate exits. You have a book of spells to help you (and which you add to). You'll need your wits too, for there are many monsters and puzzles to overcome. Your journey is indeed a perilous one...

Your Attributes

On loading, values are generated for stamina, skill and luck. If you're not happy with the values you are initially given, option 6 will redistribute the numbers – note that this only juggles the figures around: you won't get all attributes higher!

When your stamina runs out you're dead. Combat reduces stamina a lot. Most other actions will also reduce it, but to a far lesser degree.

The outcome of combat is affected by your skill and stamina levels. Luck influences virtually everything you do.

Stamina can be increased by eating and drinking. Other special objects can increase your Skill and Luck ratings.

Saving and Loading

Saving a game depletes your stanima, so don't rely on it as a way of getting round difficult problems! When restoring a saved game, you're asked for a Version letter, so make sure that you keep a note when you save the game.

Experience

The further you get in the game, the more your experience level will increase. Greater experience advances your Status and Magical grade.

Combat

All combat is conducted through magic – physical contact with other creatures can be fatal. When engaging in combat it is wise to check both your own and the monster's Status before each round. A creature's Status often gives clues on how to deal with it.

Unlocking doors

Most locks that you'll encounter are magical and need magical keys to open them. Such a key may not be immeadiately recognisable, but need only be dropped by a lock to be effective. Other locks are opened by the use of passwords.

Communication

All communication is carried out in the middle window. All input uses the 'Merpish' language system, which works as follows:

All commands have a keyword, which is entered just as the first letter (occasionally two letters such as in North-East). Some keywords require an Object, whose name has to be entered in full. Commands can also be entered as a string, each seperated by a comma. Commands are entered by pressing Return.



● When will it ever end! Those blasted aliens (well, monsters actually, but they're nearly the same thing) have taken over 'your' dungeon.

● *The keywords are as follows:*

N – North; E – East; S – South; W – West; NE – North-East; NW – North-West; SE – South-East; SW – South-West; L – Left; R – Right.

H Halt. This abandons the current command, and the rest of any command string
Z A special funtion to swap the information in window 1
O Return to option screen
X (object) Examine object
P (object) Pick up object
D (object) Drop object

Spells

I (object) Invoke a named demon.
B (object) Blast the object or monster.
F (object) Freeze the object or monster.

Merpish object names

ASMODEE; ASTAROT; AXIL; BELEZBAR; BOOK; BOX; BOTTLE; LOAF; CANDLE; CHAIR; DEMO; MAGGOT; OBJECT; TABLE; WALL; MONSTER; SWORD; ROCK; SIGN; RUBY.

Conversation is carried out as follows:
"name, object"

The *name* is the name of the creature that you're addressing. The *object* is the demon, monster or thing that you wish to be attacked, or located, or require information about (which of those it is depends on the nature of the creature).

Tape Trouble?

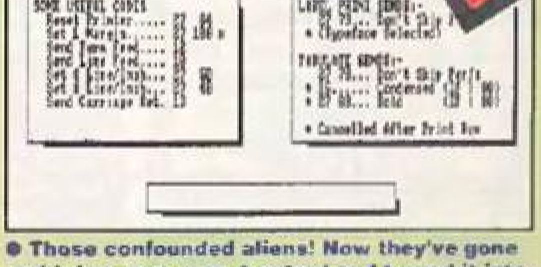
We hope that your covertape will load first time. However, having worked with computers for as long as we have, we know that things don't always go like clockwork. If you have problems loading the tape, try the following:

- **Try loading at several different volume levels if you're using an external tape recorder. Computers can be very fussy about the volume they will load at.**
- **Clean the tape heads. This can be done with any commercially available cleaning kit. Alternatively, use a cotton bud soaked in alcohol. Gently rub the surface of the heads and pinch roller to remove that layer of accumulated grime.**
- **Adjust the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Rotate it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.**
- **Sometimes the tape spools can jam or stick at a critical moment. Check the spools in your cassette rotate freely, if necessary giving the casing a slight tap against a table edge just to make sure. If, after trying the all of the above, you still can't get the tape to load then you can return it for a replacement. Send the tape, along with an SAE to:**

AA72 Covertape Returns, Ablex Audio Video Ltd, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD.

DATAFILE

There are two databases on the tape. The first, *Datafile*, is Public Domain and will work on all machines. *Rambase II* is a modified version and requires 128K and a disk drive. You will need to transfer it to disk before you can use it – follow the transfer instructions on the tape. Turn to our database feature on page 23 for the full story. **AA**



● Those confounded aliens! Now they've gone and taken over your Amstrad and turned it into a database! Don't they ever give up?

DISK DRIVE OWNERS READ THIS!

If you have a disk drive, you'll no doubt find the prospect of loading everything from tape daunting. Thanks to our special tape to disk transfer program, you'll only ever have to load from the tape once – all programs are transferred easily to disk.

Insert a blank formatted disk into the drive and the covertape at the start of side one into your cassette player. Connect the REM socket if you have one (6128 owners) – it'll automatically stop the tape in the right places when accessing the disk drive.

Load the menu program in the normal way and select the TRANSFER TO DISK option. Follow the on-screen instructions and press a key when the computer asks you to. It's as simple as that!

Should you experience problems you'll be asked to rewind the tape and try again. Don't panic if this happens – follow the advice for tape loading troubles.

All three games on this month's covertape are loaded by first typing:

RUN"MENU

Then select the game you wish to load from the options given.

The database programs are loaded by typing:

RUN "DATAFILE
RUN "RAMBASE

DISK OFFER

All the programs on the *Amstrad Action* covertape are easily transferable to disk. However, owners of the 6128 Plus are unable to connect a cassette recorder to their machines, and some of the rest of you may experience loading difficulties.

We've come to a special arrangement with our duplicators. For a small charge to cover costs, they will supply a disk containing all the programs we're giving away on the tape. If you would like a copy on disk, simply send them your name and address along with a cheque/postal order for £2.00 made payable to Ablex Audio Video Ltd. Send your orders to:

AA72 disk offer,
Ablex Audio Video Ltd., Harcourt, Halesford 14, Telford, Shropshire TF7 4QD.

You may also order previous covertapes from issues 67 onwards – just make sure that your envelope is clearly marked with the issue number of the covertape you require.

Got a 464 Plus with a disk drive?

Users of these machines have reported problems transferring programs to disk. We reckon that we've solved the problem. However, if you have a modified machine and are still experiencing difficulties, let us know so we can investigate further!

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★★ LET'S GET SERIOUS ★★
A monthly look at serious software
This Month: The Spreadsheet
A spreadsheet is a tool for getting the computer to perform lots of calculations. Change one value, and all others are re-calculated. This can simply be adding a column of numbers, or very complex formulae can be entered for a whole range of applications, from Bank Statements to statistical analysis. Our recommended spreadsheet for most uses is Matrix. Although it does not have the biggest data space, or the biggest range of built in mathematical functions, it is very easy to use and has good editing facilities, including the ability to sort whole blocks into order, and graphics.
Feel free to telephone for advice on which spreadsheet best suits your needs.
Matrix Spreadsheet Plus £29.95
Next Month: The Database

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Reaction

We want your letters! If you've got something to say, just jot it down and send it to us. We read EVERY letter sent in, even if we can't print them all!

Just a few pointers to bear in mind:

- **Got technical problems? You should be writing to *Forum*, not *Reaction*.**
- **Stuck on the basics and need help? That's what *Ask Alex* is for.**
- **Keep your letters short, and try to make just one point rather than loads**
- **Looking for a particular cheat or poke? You need *Cheat Mode!***
- **Don't enclose SAEs or ask for individual replies – there's no way we can manage that.**
- **Remember, you can write in about *anything* – piracy, sexism, the price of fish (eh?) – you name it. We want to make sure these remain the liveliest letters pages anywhere. The address to write to is: *Reaction, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW*. What are you waiting for?**

Born again CPC-er!

Your mag is really terrific but I would just like to ask you a few questions. Firstly, I was reading about how Ubi Soft had cancelled the English version of *Iron Lord* (boo!) and then, a few pages later in the Turbosoft ad, there it was, in the Amstrad top-thirty hits section. Are Turbosoft selling the French version, or the English version? Please investigate this, as there are many fellow readers who want this fantastic game.



● AA64 and its covertape stopped Australian Silas Palmer buying an Amiga!

Secondly, I really love your magazine and order it from the local newsagent every month. One day I found that my newsagent had missed out ordering issue 65. I thought, 'not to worry, I can order it as a back issue'. But I turned to the subscriptions page and, to my utter horror, found that it cost £7 to order a back issue! I usually only pay about £2.25 at the newsagent. Please explain to me why there is that gigantic price difference.

Thirdly (this is the good bit), I would like to tell you (if I haven't told you already) what a wonderful magazine you guys make. I used to be like Eric Ellicock, and hadn't bought a decent game for years because I thought that they had stopped making them for the Amstrad. I was bored to tears with my collection of '1989' games. But then I saw your mag and, attracted by the Christmas covertape, I bought issue 64 and now I have *Sim City* and am waiting for *Hard Drivin'* to arrive. It was about the best £2.25 I have ever spent. Thank you so much, as I was about to spend my entire 10 years' worth of savings to go and buy an Amiga. You are the greatest!

P.S. This was written on *Stop Press* which I bought because of your mag.

Silas Palmer
Australia

Rod: It's nice to know we've got fans over there, Silas! Sorry about the cost of a back issue, but these are sent out air-mail – which means you get them quickly and in the best possible condition. Incidentally, I spoke to our back issues manager, who looked up the air-mail price and found it was now £6.03 – he's not charging enough!

There had to be a catch...

I love the *Action Packs!* The *Ask Alex* section is brilliant for us thickies and my BASIC has noticeably improved. The reviews are the best

Too nasty by half



● Frank and his Predator mask competition – a "totally worthless page"?

In *AA68* you ran a competition where the prize was a gruesome mask to make you look like a thing from a film that most of your readers would be too young to see, and all the rest wouldn't want to see! Add to this your sexist comment, "great for scaring the girlies", and you have a totally worthless page.

I then heard on the radio a program about what children read, which used this issue of *AA* as an example, quoting the competition for the Predator mask. It made me angry.

Anon.

Rod: Good grief, Mr Anonymous, where's your sense of fun? Many of our readers are too young to see Predator, but (a) they know all about it and (b) they can play the computer game!

"Great for scaring the girlies" was a joke – and I can't imagine anyone taking it any other way. It seems to me you're being more than a little bit stuffy about the whole thing.

By the way, we still haven't worked out whether Frank looks better with the mask or without it.

Amstrad Plus points

At last! A magazine that acknowledges the existence of 6128 Plus owners. We now have the chance to get *AA* covertapes on disk, and at a very reasonable price. I can't find a shop in my area that sells blank disks at £1.70, never mind disks with programs on. Well done, keep it up.

I hope you or one of your army of readers can help me with a couple of problems:

1. Why do documents that I write using *Mini Office II* come out as shown in the enclosed example when I print them out after they have been saved to disk as an ASCII file?
2. Is it possible to get an AMX Mouse which fits the 6128 Plus? I recently went along to my local computer shop to purchase one of these highly desireable items only to find that, when the cartridge is installed (as it must be to use the 6128 Plus) it wouldn't fit.
3. Is Robot PD library still in existence? I sent a disk to them along with the requisite SSAE and 45p nine weeks ago and have heard nothing since.

Whilst on the subject of public domain, I thought you might like to hear some of my comments regarding a couple of these libraries. The four libraries I have used so far are Scull, Data, Penguin and Robot.

The first three are all very good, but Data PD Library is the one that comes out on top of my list. It is extremely fast – four days is the maximum time it has taken for a disk to be returned bulging with goodies, i.e. posted on Monday morning (about 9am) and back in my sweaty mitts by 7:45am on Thursday morning.

P.S. I don't agree with Iain McCarthy about the presentation. It is great as it is – keep it up.

Andrew O'Hara
North Yorks

Rod: Er, the disk versions of the covertape aren't £1.70 any more but £2.00. There was a mix-up over the quotes we got from our duplicators and VAT wasn't included. Still, don't think of it as having to pay another 30p all of a sudden, think of it as paying 30p less than you should have done for a couple of months! Now, to answer your other questions:

1. From the look of your print-out, all the carriage returns have been lost. At the same time they seem to have been replaced by spaces. Saving text in ASCII form will eliminate carriage returns, but as for the spaces... without having a copy of Mini Office II to hand to try it out on, I can only guess – have you saved a document with a positive left margin? Does Mini Office insert spaces to produce text indents? It looks the sort of problem that's easily solved.

2. We had the same problem as you with our AMX Mouse! However, there does appear to be a very simple solution – what you need is a joystick-extender, a lead with a joystick plug at one end and a socket at the other. I've gone through the mail order ads in AA, and although I didn't see one advertised they do exist. Our sister magazine ST Format uses them to get over the abominable siting of the ST's joystick ports.

However, there is one other problem. I tried connecting our own AMX mouse to the office Plus using a joystick splitter, and – would you believe it – the power socket on the new machines is a different size!

It looks as if it's just a case of fitting a different plug to the mouse's power lead, though (we hope).

3. Robot PD, what have you done with this man's 45p? I don't have a number for Robot – perhaps someone else can help?

I've seen yet for the Amstrad, but maybe you could fit more in.

Now for the main reason I wrote this (*oh yes, I knew there had to be a catch – ed*). I have always wanted to have some serious software for my Amstrad, so when I saw the database in the *Type-ins* section of *AA67* I jumped for joy. It took me a day to type it in and at various places I saved it and loaded it up to see what it was like. When I looked at it after the second-from-last saving (are you still following me?) I was very impressed. When I saved it for the last time I thought I must have saved it all. However, trying to load it up later I found that Block 1 hadn't save for some reason, and that blocks 2, 3 and 4 had. Very strange! So, after hitting my head against a wall, I composed myself and decided that I definitely was *not* going to type all that out again. Have you got any idea what went wrong? If there is anyone out there who would like to copy the program for me for a small charge (a very small charge), could they contact me at: **17 Stoke Road, Leighton Buzzard, Beds LU7 7SW.**

And no funny business! I'm trusting you to send back the cassettes when you have copied the listing. *You have been warned!*

Congratulations again on a brilliant mag.

Jerome Turner

Rod: I'm mystified, Jerome. Just sounds like a bit of bad luck to me. Perhaps some kindly reader will take pity on you and send you a copy as you ask?

Oh, by the way, you might not want to bother. If you check out this month's Action Pack you'll notice an extremely spiffing little PD database which will run on your 464...

We want more programming

Way back through the sands of time, well, April to be more precise, you finished your 3D programming section. It was very good, but what has taken its place?

Type-ins is helpful, but this does not really help teach programming techniques. I would like to see more basic programming features, perhaps dealing with simple strategy games or other graphics ideas.

Hold tight, we are now entering the twilight zone. I think a machine code tutorial, each issue dealing with a simple idea like multiplying two large numbers, simple graphics, sound etc building into a machine code library would be a very good idea. I feel this would pay you off in the end, by improving the quality of type-ins and promoting the CPC as more than a games machine. Perhaps you could put these routines on the gap at the end of the covertape, in ASCII assembly language form (to load an assembler), or as a BASIC loader?

Neil Stewart
Bridgwater

Rod: Good heavens, this man's psychic! Last month's covertape had Hisoft's Devpac assembler on it in its entirely. And this month we're starting a brand, spanking new machine code tutorial section!

Yes, sir!

I write concerning a number of points:

1. Number of pages. Issue 68 has 92 pages. Issue 70 has only 68. Why has the number of pages gone down? Features are disappearing without warning, e.g. *Free for All*, *AAfterthought*, and some are smaller than before, e.g. *Reaction*, *Ask Alex*. *Cheat Mode* is also smaller, but did we really need six pages anyway?

2. The new budget games section. Firstly, it isn't in colour. You said that *Action Test* would be in full colour. Secondly, shouldn't the best games have bigger reviews, not necessarily the more expensive ones? The new section is OK for re-releases, but if a new *Dizzy* game came out, it would only get 1/3 of a page, but *Lone Wolf* got a full page purely because it costs £11 instead of £3. Why not have a section for duff games and re-releases? That way a page would not be wasted telling us that a game is rubbish.

3. Covers. Most of your covers are pretty dull. In my view, the best are colourful and cartoony ones, e.g. issues 70, 69 and 58.



• *Amstrad Action's* covers are great, says Ben Wheal. No they're not, they're comic-like, says A S Moreton. What about the rest of you?

4. Covertapes. They are really good. My favourite games have been *Dizzy* (which I had already, but that can't be helped), *Spindizzy* and *Balldozer*.

5. Game difficulty. The *Dizzy* games (you may have guessed by now that I like them!), *Rick Dangerous 2* and *Switchblade* are about right, because each time you play you get further, and eventually you complete them.

6. Pokes. Why do people spend up to £20 on a game, use a poke on it to complete it and never

play it again? Most games can, in time, be completed without a poke.

7. I hope that you run a machine code series, continuing where *First Bytes* left off.

Ben Wheal
Worcester

Rod: The reasons for the smaller issue size are economic ones, I'm afraid. During the summer there's always a lull when advertisers take a break and companies bring out little new product. It would simply be uneconomic for Amstrad Action to carry on being 92 pages in those circumstances. Rest assured, though, that even though the issues might be smaller we do our best to cram them even more with information.

Sorry we can't put the budgets in colour – for now – but when we first said all of Action Test would be in colour, the budget section hadn't been decided on. We don't propose to put every budget game in that section – particularly good ones may well get a (colour) page of their own. Sometimes we give bad games plenty of space just because they're big licences or major releases in some way. For example, we'd have given Turtles a spread even if it had been rubbish, because it was the 'big' game of the year. If a reasonably major game is no good, we take the trouble to spell out why.

Thanks for your comments on covers. Interestingly, the ones you like are the ones other people complain about being too 'comic'-like. We can't win!

As for the pros and cons of poking games, I think people only turn to pokes when they're just about fed up to the back teeth of getting nowhere in the game anyway, so they don't really lose out by it. A machine code series? Look no further than this issue!

Mr Cool

Yo, Dudes, where's your *AAfterthought* in last AA ish 70? That's the coolest part. Next, US Gold is supposed to have chilled out with *Gauntlet III* in April 1991, but no way has it been. And, hey, why say Mrs Holoway should easily be able to get a 464 Plus, whilst you couldn't even get a screenshot!

Your coolest fan
Portsmouth

Rod: Don't worry about AAfterthought, it's back this month. What's all this 'chilling out'? Anyway, Gauntlet III got a going-over last ish. As for the 464 Plus business, are you being a bit cheeky? It's a bit hard to tell, really. Yo! Dude!

Too much like a comic?

I understand that you have to appeal to a wide audience, more so than any other computer magazine because of the versatility of the CPC, but recently the magazine has had more of the appearance of a comic, with poor covers and the badly-presented review section. Please go back to the old-style review pages and spare us the cartoon drawings of staff and loud titles.

A S Moreton
Plymouth

Rod: Any changes to AA really are due to the letters we get from the readers (we only print a fraction of those we receive) and what we can see happening in the CPC marketplace. I can understand people being upset when old favourites are changed, but sometimes it's what people want.

David gets a bite!

Regarding David Curry's request for a computer fishing game, *Computing with the Amstrad* and the March 1987 issue contained a type-in entitled *Fishing*. If David gives me his address I shall be pleased to send him the prog on tape.

P.S. After all your codding I'm sure eel be glad to get the game and, when he's had time to mullet over, he can wrasse-l with the problems until he's a dab hand at *Fishing*. Then there will be no need for him to carp again and he'll be grateful to huss. Obviously, he'd not been looking in the right plaice!

Aubrey Sinden, Church Cottage, Brede, Rye, East Sussex TN31 6EJ

Rod: That's enough fish gags – they're getting a bit fin. **AA**

A crafty cartridge cheat?

I have had a brilliant idea for how you can have a normal game with console graphics and speed. How? Well, what you do is buy an initial package containing a boot-up cartridge which will then access several ROMs, and when prompted you just insert the game disk designed for this system. After that you only have to buy a disk containing a game designed for this idea. The game disks should only cost around £10 at the most...

Grant Taylor
Dunfermline

Rod: Hmm, yes, the trouble is Amstrad would go spare. The whole point of the cartridge set-up as it stands is that only cartridge games can use the enhanced graphics and sound, and Amstrad makes money from the sale of cartridges...

Also, the software publishers would be a bit peeved because one of the other key factors with cartridges is that they're much harder to pirate than disks.

The other thing is, do you really need to use clever ROM tricks to access the extra hardware? We think not, though more than that we can't say...



● Is there a way of producing cartridge-quality games on tape and disk for the Amstrad Plus?

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PROTYPE – THE RETURN OF ARNOR!

Did you think Arnor had developed their last CPC product?

We must admit, it was starting to look that way. But now we are pleased to announce a stunning new arrival - *Protype*. This provides *Protext* with the improved printing features that many of you have requested.

We honestly believe that it is not possible to achieve better quality output from a 9 pin printer than with *Protype*. Just look at the examples below - all printed on an elderly Amstrad DMP 2000!

Protype costs just £30 and is available on disc only. It works with *Protext* ROM and disc versions and may also be used as a stand alone program.

5 years after its original release Protext remains indisputably the leading CPC word processor. In the February 1991 issue, AMSTRAD ACTION said:

"Without doubt the most complete word processor available for the CPC ... Protext is very much a professional quality program."

AMSTRAD ACTION speed tests show Protext to be many times faster than other programs, for example:

Replace operation		Delete 17k block	
Program A	- 94 secs	*Program A*	- 17 secs
Program B	- 74 secs	*Program B*	- 15 secs
Protext	- 5 secs	*Protext*	- 1 sec

Prices

Protype	£30	(disc, Protext not required)
Protext + Protype	£45	(disc)
Rombo ROM box	£20	(when at least one ROM is purchased)

ROM prices

Protext	£25	Promerge Plus	£20
Maxam	£25	Utopia	£20
Prospell	£20	Maxam 1½	£20
		BCPL	£20

Liquid[293K]	c_p/J kg^{-1} K^{-1}
① Acetic acid ($C_2H_4O_2$)	1·96 × 10^3
② Acetone (C_3H_6O)	2·21 × 10^3
③ Water$_{sea}$ (H_2O, salts)	3·90 × 10^3

Protype is a typesetting print enhancer designed to squeeze maximum quality from low-cost 9 and 24-pin dot matrix printers. This paragraph shows how **Protype** can work to a right-hand margin.

[A] **Ganga común**, *«Pterocles alchata»*, 38cm
♀ con tres bandas en el pecho †
♂ faja pectoral castaña ‡

supports over 40 European languages including:

Anglo-Saxon	þ ð æ œ ā ē ī ō ū ǣ œ̄
Czech	á č ď é ě í ň ó ř š ť ú ů ý ž
Latvian	ā č ē ģ ī ķ ļ ņ š ū ž
Polish	ą ć ę ł ń ó ś ź ż
Turkish	á â ç ğ ı î ö ş ü

[B] just some of the non-ASCII symbols:
« » „ " " ¡ ¿ 1º 2ª ¶ §
© £ ¥ ¤ ¢ ½ ± ÷ × ↓ °
← → ♯ ♭ ß ð Đ þ Þ ø Ø
å Å æ Æ œ Œ ł Ł đ ħ Ħ
←line graphics too→

This actual-size printout was produced in one operation on a 9-pin printer using Arnor's Protext and Protype.

Protype (disc only) works on:
- ○ Amstrad CPC6128 [+]
- ○ CPC664 & 64K expansion
- ○ CPC464 & 64K expansion & disc drive

Uses less than 350 bytes of the main 64K.

PROTYPE IS VERSATILE:
- *multiple diacritics (accents) with any letter* (ẹ̄ ṇ̄ s̤̈ Ặ)
- *tabulates proportional text / micro-justifies spaces*
- 240 DPI × 216 DPI *resolution on a 9-pin printer!*
- *works with all 9-pin or 24-pin Epson-compatible printers*
- *use from Protext, Basic or machine code*
- *includes the seven fonts used in this demonstration*
- *choice of character designs within a font* (page or page)
- mirror imaging of a line of text (printed mirrored)
- superscript, sub script, underline, [b] box, ⓔ encircle
- *kerning (spacing of 'difficult' character pairs* (AV)

Fæder ūre, þū þe eart on heofonum	(Old English)
Ár n-atheir, atá ar nèamh	(Irish Gaelic)
Fader vår som är i himmelen	(Swedish)
Svargayehi vädasiṭina apagē piyāṇeni	(Sinhalese)
Teve mūsų, kurs es danguje	(Lithuanian)
Pater noster, qui es in cælis	(Latin)

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IT'S SHOW TIME!

The computer industry gears up as autumn approaches...

Yes, it's getting to that time of year. The build-up towards Christmas sees all the major manufacturers bursting into activity with tons of new product – we hope!

Make a note in your diaries for the 5th to the 8th September and the 1991 European Computer Entertainment Show, being held this year at Earls Court II.

The organisers are describing it a "the youth culture event of the year", and are expecting 45,000 visitors during the four days the show runs for. Make sure you've got some loot on you, though, because the admission charge is a pretty stiff £7.

And in the midst of all this glamorous gamesy stuff, let's not forget the next Computer Shopper Show. That's being held at the Wembley Exhibition Halls, Wembley Conference Centre between the 5th and 8th of December. This show's more for the serious user, with "displays and demonstrations of all the latest hardware, software and peripherals for all popular makes of home and business computers".

The organisers are expecting around 50,000 visitors this time and an estimated 260 exhibitors. Admission to the Computer Shopper Show is £6, so start saving those pennies.

Last to get a mention is the All Formats Computer Fair. The AFCFs may be at the bargain basement end of computing, but they've been successful enough to spawn venues in five cities this September/October, and the fairs are now being held four times a year. There are no pretentions to grandeur, just loads of exhibitors selling at knock-down prices. Admission is £4.

The venues are: University of Leeds Sports Centre (Sunday, 1st Sept), Royal Horticultural Hall, Westminster (Saturday, 7th Sept), National Motorcycle Museum, Solihull (Saturday, 14th Sept), The Brunel Centre, Bristol Old Station (Sunday, 6th Oct). *AA*



● The All Formats Computer Fair is going from strength to strength – now at five venues.

Amstrad Action even more popular!

Amstrad Action's latest ABC figure for January to June 1991 shows a rise of 13% on the previous six months, and a massive 17% on the same time last year. Not bad when sceptics are claiming the 8-bit market is on the way out!

The magazine has only once posted a figure higher than the current 35,159, and the latest numbers prove that the CPC market is not just holding its own, it's actually showing an increase!

All of Future Publishing's titles have shown a circulation increase. *AA's* sister 8-bit mags are doing well too, with *Your Sinclair* climbing 8% to 65,444 and *Commodore Format* turning in its first ABC and hitting 50,135, already ahead of its nearest rival.

"It proves the 8-bit market is alive and kicking," says Jane Richardson, publisher of all three titles. "If you think these figures are good, just wait 'till next time!"

Star LC10 replaced

Printer manufacturer Star's long-running entry-level LC-10 model is to be replaced by a new machine, the LC-20.

The LC-20 is designed for exactly the same market as the LC-10 – small businesses, home users, education – and boasts eight NLQ fonts and printing speeds of 180cps in draft mode and 45cps in NLQ. The price will be around £235 including VAT.



● Star's veteran LC-10 printer is to be superseded by the new LC-20.

Stateside 'sticks hit UK

Euromax is importing a new range of joysticks from American manufacturer Beeshu, and a pretty interesting (weird) bunch they are too.

Zoomer

This one's been knocking around a little while, but it's recently been revamped following users' comments. It's terrific fun for racing and flying games, but it can be a bit tricky to keep it stuck to the table-top when you start getting carried away. Recommended Retail Price is £36.95.



● The new, improved Zoomer.

Ultimate Superstick

What a corker! If you want arcade cabinet feel, this one delivers. Switchable left and right-hand controls and an Autofire that actually works on the Amstrad! RRP is £31.95.



● Ultimate Superstick – just like an arcade control pad (almost).

Hot Stuff

This one's not going to win any prizes, unfortunately. It's a pretty standard 'stick at a pretty standard £9.95. It's available in a nice variety of bright colours, but it's a bit tacky and creaky.



● Hot Stuff... iffy.

SPECTRAVIDEO LATEST...

In the meantime, Spectravideo has another new joystick – but rather than looking like something out of a Stealth Fighter, the Gravis is extremely plain.

It's another American 'stick which apparently comes top in all the joystick surveys over there. The emphasis is very much on quality rather than sensationalism. "The Gravis speaks a word and the word is quality," quoth Spectravideo.

The Gravis has a full-size padded foam handle, an 8-position centering tension control and *three* independent Fire buttons. It also sticks to a table top "like electrons to the nucleus of an inert element." Good grief.

The price for all this quality? A stonking £40, though Spectravideo reckons that many users buy two or more 'ordinary' joysticks a year anyway.



● Quality talks, according to Spectravideo. For £40, the Gravis had better do some pretty fast talking...

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AMSTRAD TOP 50 HITS

	CASS	DISK
Back To The Future 3	8.99	12.99
BAT (Disk only)	N/A	18.99
3D Construction Kit	18.99	22.99
Chips Challenge	8.99	12.99
Cricket Captain	7.99	N/A
Dick Tracy	8.99	12.99
European Superleague	11.99	14.99
Exterminator	8.99	12.99
Extreme	7.99	10.99
F-16 Combat Pilot	11.99	14.99
Gazza 2	8.99	12.99
Gauntlet 3	8.99	12.99
Golden Axe	8.99	11.99
Gunboat (Disk only)	N/A	12.99
Hero Quest	8.99	12.99
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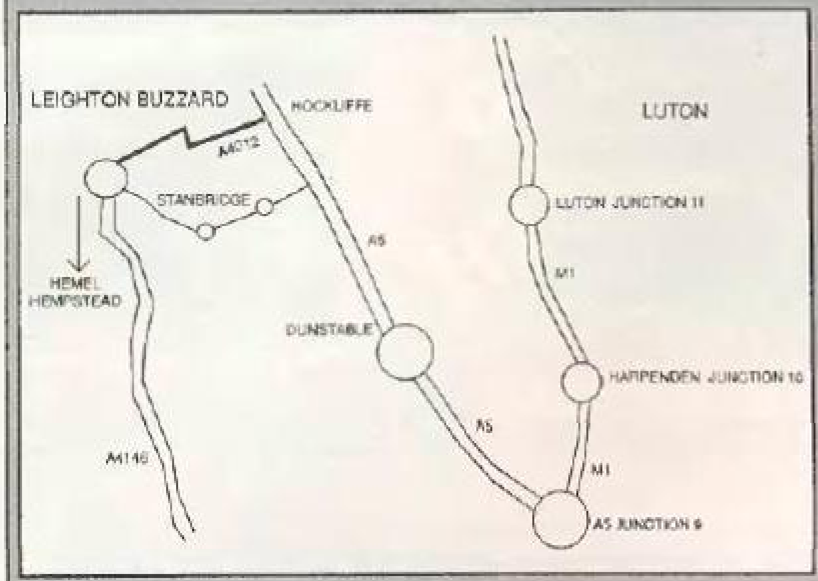
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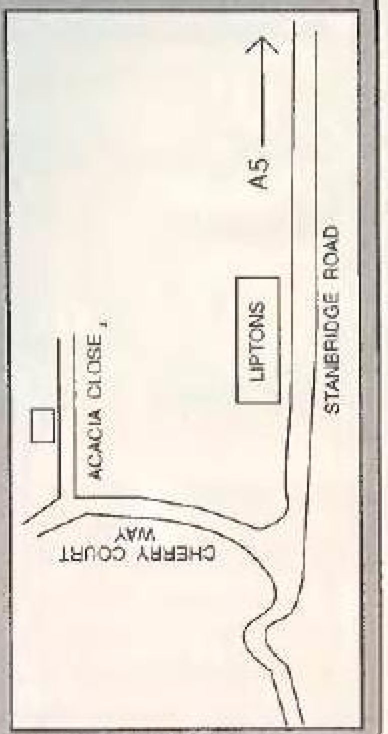
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NEW ENTRY ▲ · NO CHANGE ■ · GOING UP ▲ · GOING DOWN ▼

Pos	Title	Publisher	Comment	Review	Move	Last
1	Teenage Mutant Hero Turtles	Mirrorsoft	Still there! Will those sewer-dwellers ever leave the top spot?	AA65 76%	No change	1
2	Big Box	Beau Jolly	Also holding its place is Beau Jolly's massive compilation	Not Reviewed	No change	2
3	Hero Quest	Gremlin Graphics	Gremlin's sword 'n' sorcery epic hits the top ten this month (MASTER GAME)	AA71 91%	New entry	–
4	Power Up	Ocean	Ocean's arcade hits get another airing in this compilation	Not Reviewed	Going down	3
5	Shadow Dancer	US Gold	Brilliant Ninja action with one man and his dog (MASTER GAME)	AA70 90%	New entry	–
6	Back to the Future 3	Mirrorsoft	Marty McFly goes back in time once more, this time to the Wild West	AA69 78%	Going up	9
7	Narc	Ocean	Unfeasibly high chart position for Ocean's arcade conversion turkey	AA69 60%	Going down	6
8	Manchester United Europe	Krisalis	If football's your thing, then this could be the title for you	Not reviewed	New entry	–
9	Switchblade	Gremlin Graphics	Explore and fight in Gremlin's massively successful epic (MASTER GAME)	AA68 90%	Going down	4
10	North and South	Infogrames	The American Civil War features in Infogrames' brilliant arcade/strategy masterpiece (MASTER GAME)	AA66 91%	Going down	8

THE BUDGETS

Pos	Title	Publisher	Move	Last
1	Panic Dizzy	Codemasters	No change	1
2	Bubble Bobble	Hit Squad	New entry	–
3	Double Dragon	Mastertronic	Going up	5
4	Magic Land Dizzy	Codemasters	New entry	–
5	Dragon Ninja	Hit Squad	Going down	4
6	Quattro Cartoon	Codemasters	New entry	–
7	Red Heat	Hit Squad	New entry	–
8	Quattro Coin Ops	Codemasters	New entry	–
9	Pro-Footballer	D&H Games	New entry	–
10	Cavemania	Atlantis	Going down	6



● The Turtles are at the top of the charts – not bad for crusty little brown things dumb enough to climb into bonfires (oh no, that's tortoises, isn't it?).

WHAT'S HAPPENING

The *Turtles*, surprise surprise, are still at the top of the tree and show no sign of losing the valuable No.1 spot. Are they unshakeable? Will the *Simpsons* come rocketing in at No.1? Only time will tell, but at the moment *Hero Quest* looks like the only viable contender for the crown. Gremlin's red hot fantasy epic has stormed in at No.3 and looks all set to climb higher. Cartridge software is notable by its absence from the chart – where are all you console owners?

The ST is just

The Atari ST is the perfect introduction to the world of computing. The power of the ST allows you to run "serious" applications as well as playing games, and the ST system is flexible enough to allow you to expand as you develop your interests and expertise in different applications.

With so much diversity and power it is easy to see why the Atari ST family is one of the most successful ranges of computers in the world. But best of all is the built-in growth potential. The 520ST user of today is the TT user of tomorrow; beginning with games or a simple word processor, anyone can learn about computers and gradually acquire the skills of the professional computer user. And unlike many other systems, an Atari upgrade is not wasteful. Much of the software available for the 520ST will run on both the Mega STe and the TT systems. With an Atari an upgrade means that you can add new capabilities and expand your computing horizons without losing everything you have acquired along the way.

*If you thought that computers were all about playing games you've been missing out on the real potential that you and your computer have. To find out more about either the **Atari ST** or peripherals for any applications simply fill in the coupon and send it to Atari at the address below.*



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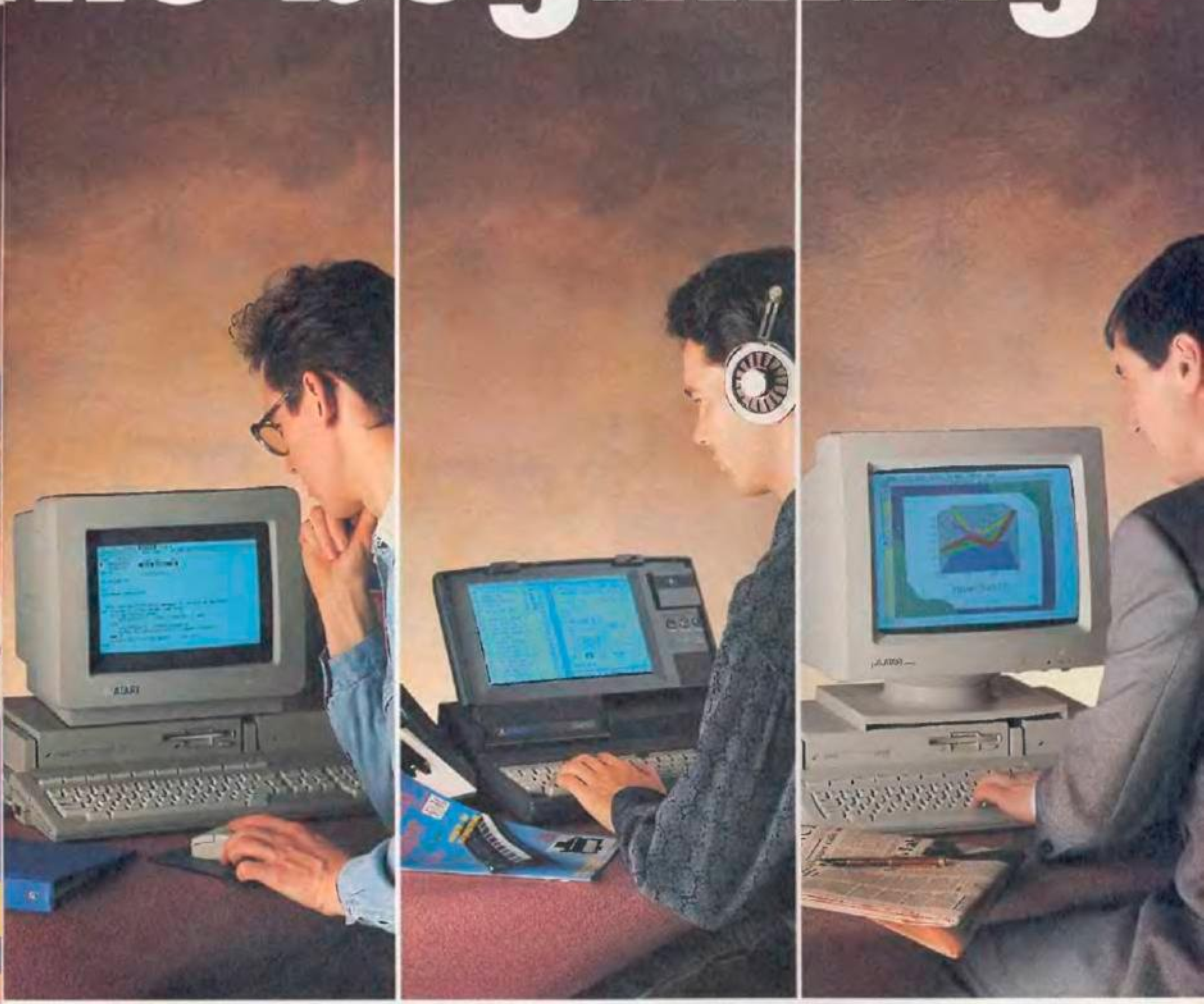


The **Atari 520ST** is an easy way for you and your family to learn about computers while having a great deal of fun. This best-selling computer has an impressive range of features that fit many requirements at home or in the office. A generous 512K RAM memory is included as standard - enough to run large spreadsheets and databases as well as the latest generation of computer games. There are plenty of expansion ports available for printers, modems, monitors and hard disk, and other peripherals allowing you to increase the power and flexibility of your system as needed. MIDI expansion ports are fitted as standard. MIDI (Musical Instrument Digital Interface) is the music industry standard interface that allows you to control both recording and playback of synthesisers and other digital instruments with your computer.

There is no other computer range in the UK that can offer its users such a wide variety of software support, ranging from educational learning programs to 16-bit computer games to professional quality desktop publishing packages.

The ATARI ST

the beginning



The power of the new **Mega STe** range makes it a serious contender for those who are after power computing. It is an ideal machine for the student or computer enthusiast who wants to run memory intensive applications such as Computer Aided Design (CAD) or graphics applications. The Mega STe features separate keyboard and central processor with a 1MB floppy disk drive and a 50MB Hard Drive for data storage. The Mega STe features a fast 16MHz operating speed, which can be switched to 8MHz to run any programs developed for the 520ST, making it even easier for you to upgrade.

For those of you who want to run a 'home office' with separate files for word processing, spreadsheets and accounts packages the Mega STe - with its vast amount of built-in hard disk storage - is an excellent choice. For those running graphics intensive programs the faster operating speed will make the Mega STe a much more productive machine. The Mega STe also features an extensive range of expansion ports that allow you to add even more power and flexibility to your system.

The portable **Atari Stacy** is completely compatible with all monochrome ST programs, but allows for complete portability.
It features a supertwist backlit LCD mono screen, split horizontally and has all the standard ST ports. It is available in various configerations, with Hard disk as standard.
It weighs approximately 15.2 pounds and has its own carrying handle making it easy to transfer from place to place.
Because the ST, with its MIDI interface has become the accepted standard in the music industry, the Stacy is a boon machine for musicians with a busy schedule. Songs and sequences written at home can be stored on the built-in hard disk, then the whole computer can be easily transported to the studio or gig, with minimum stress, they can even be worked upon and improved on the road.
Although it is the most specialist member of the ST family, the Stacy is still versatile enough to be used for all serious ST applications.

The incredibly powerful **Atari TT**, at the very top of the Atari range, is the first in a new generation of high specification professional personal workstations based on the successful Atari ST standard. Similar in style and design to the Mega STe, the Atari TT features a separate keyboard, 1MB floppy disk, 50 MB Hard Drive and the same range of excellent expansion ports. The basic model comes configured with 2MB RAM which can be expanded up to a massive 26MB. With a Motorola 68030 central processor, the TT runs at up to 32MHz. But speed and power are not all the TT system offers the professional user. Six standard built-in screen resolution modes mean that there is always one suitable for the purpose that you have in mind. For animation or computer graphics, choose from a pallette of over 4,000 colours with the ability to display 256 on screen at any one time, and the exceptional 1280 x 960 pixel high resolution mode is one of the best screen modes available at any price.

— More than just great games



ON THE GR

THE NEVER ENDING STORY 2



Never Ending Story 2 comes from Linel and jolly good it looks too!

A few years ago, a German film, made on a small budget, had unprecedented success in cinemas all around the world. The film, *A Never Ending Story*, was a fantasy epic about the adventures of a boy in a magical kingdom.

The sequel hit the theatres this year and told of his further exploits in this fairytale land.

The game looks all set to be something of an epic itself, featuring six distinctly different sections, including a shoot-em-up, a 3D section, a platform game and some narly parallax scrolling.

The game features all the best elements from a fairytale, including a dragon, a wicked witch and a beautiful princess. We wait with bated breath.

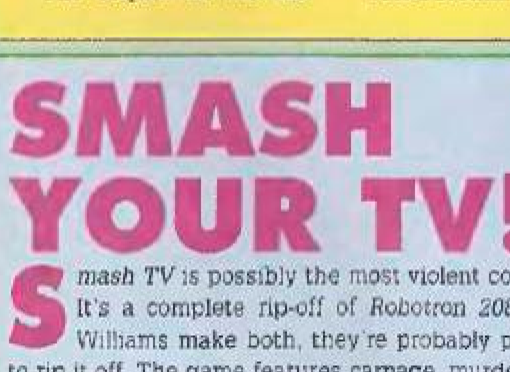
SMASH YOUR TV!



Smash TV is possibly the most violent coin-op of all time. It's a complete rip-off of *Robotron 2084*, but seeing as Williams make both, they're probably perfectly entitled to rip it off. The game features carnage, murder and yet more carnage.

The arcade machine had superb graphics, brilliant sampled sound and two joysticks for each player. It's a fair bet that the Amstrad won't be able to duplicate any of these, but the concept is so simple that the game's programmers can't go far wrong.

The game is supposed to be a futuristic game show, where the contestant has to shoot his way through an army of marauding lunatics. The object of all this is to win cash and prizes, just like the *Generation Game*!



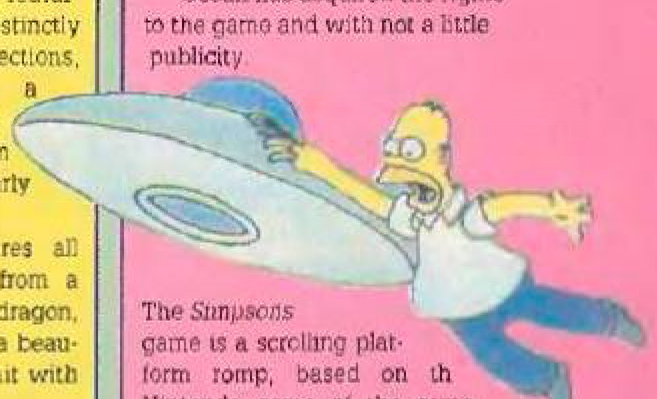
Smash TV was a great success in the arcades last year and these Commodore 64 shots give some idea of the graphics.

Extra weapons can be picked up and the pieces of dismembered body flying around add to the general atmosphere of chaos. The body count is high, the violence extreme. Can you cope?

OH NO, IT'S THE SIMPSONS!

The Simpsons are Springfield's most unsuccessful family and Sky TV's biggest asset. Matt Groening's family of complete losers features some of the funniest cartoon antics of all time.

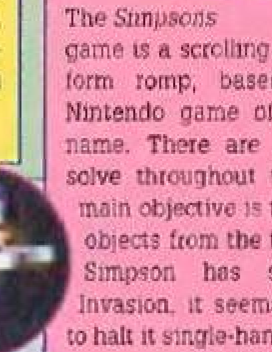
Ocean has acquired the rights to the game and with not a little publicity.





Bart is Springfield's most noisome, arrogant and downright bodacious dude. Don't have a cow man!

The *Simpsons* game is a scrolling platform romp, based on th Nintendo game of the same name. There are lots of puzzles to solve throughout the game, but the main objective is to remove all purple objects from the town. Um, yes. Bart Simpson has spotted an Alien Invasion, it seems, and has decided to halt it single-handedly.



The aliens planned to make super weapons from all the purple objects, but even if you stop them, they'll make one from hats and exit signs instead (seriously). The game looks absolutely superb and takes advantage of the inherent wit of the Simpson family.

"Whoa mama!" as Bart Simpson would say. The game is a platform romp, with lots of hidden features and some of the weirdest tasks you ever saw.

Look for your favourite characters, like Bleeding Gums Murphy and Marge Simpson, the woman with the tallest hairdo in Springfield.

HUDSON HAWK

Also coming from Ocean is the game of the movie *Hudson Hawk*. This Bruce Willis vehicle didn't exactly take the world by storm when it was released this year, but the plot is perfect material for a game.



Bruce plays an ex con who's blackmailed into stealing just about everything Leonardo Da Vinci ever did. There are lots of explosions, lots of guns and lots of car chases. There are also lots of songs by Bruce Willis, but fortunately, these won't appear in the game... phew!

GRAPEVINE...

THERE'S PEOPLE IN MY SHOES!

Gremlin has licensed award-winning cartoon series *The Shoe People*. The Shoe People are, naturally enough, shoes with faces. The cartoon (for, er, younger children) features them and their adventures in Shoeland.

The game is a kind of educational tool featuring various sub-games, much like the *Fun School* series, only with a greater emphasis on play. The cartoons are phenomenally popular with kids and it looks like the game will be too.

The game will include all your favourite characters (*never heard of them – ed*), such as Trampy, Sgt. Major, Wellington and Margot.

Quite how the concept of Shoe People came about is a bit of a mystery to us, but it certainly sounds like a laugh and something to keep the little ones tied up for a while (ho ho ho).



● *The Shoe People!* TV's funniest family of shoes make an apearance on the Amstrad in Gremlin's latest and possibly greatest educational offering.

SUPER SPACE INVADERS



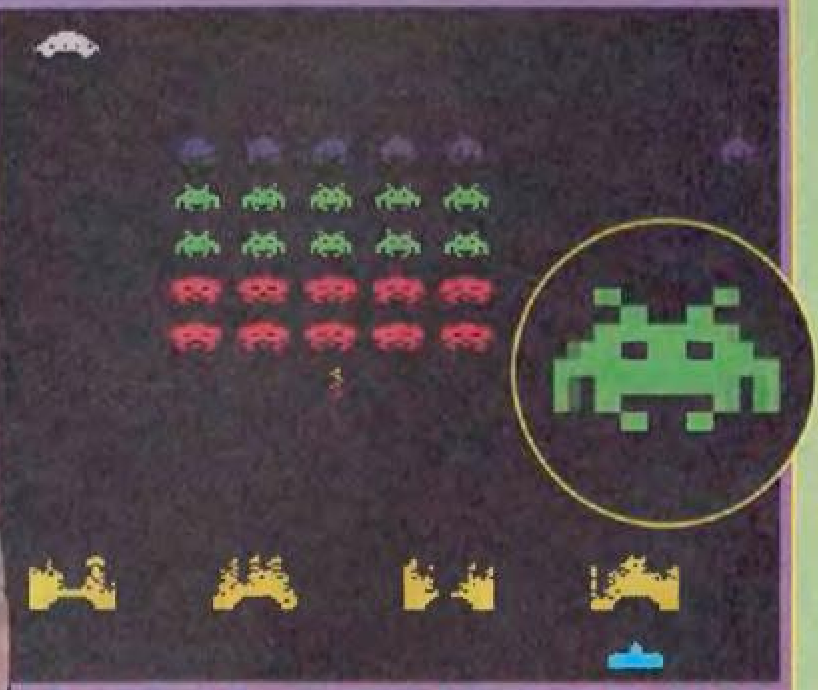
Anyone remember *Space Invaders*, the Grandaddy of shoot-em-ups? It's back. It's bigger, better and even spankier than the first game. It's been doing the rounds in the arcades for a few months now and those groovy fellers at Domark have snapped up the licence.



But *Super Space Invaders* has one of the weirdest plots ever. The invaders from the first game have reached Earth, and their mission now? To steal Earth cows... Their planet has a shortage of cows, apparently, so they're kidnapping ours. The fiends!

It's up to you to stop the blighters, using your funky little spacecraft to blow them out of the sky. The sequel is a lot more involved than the original and features extra weapons and end-of-level baddies.

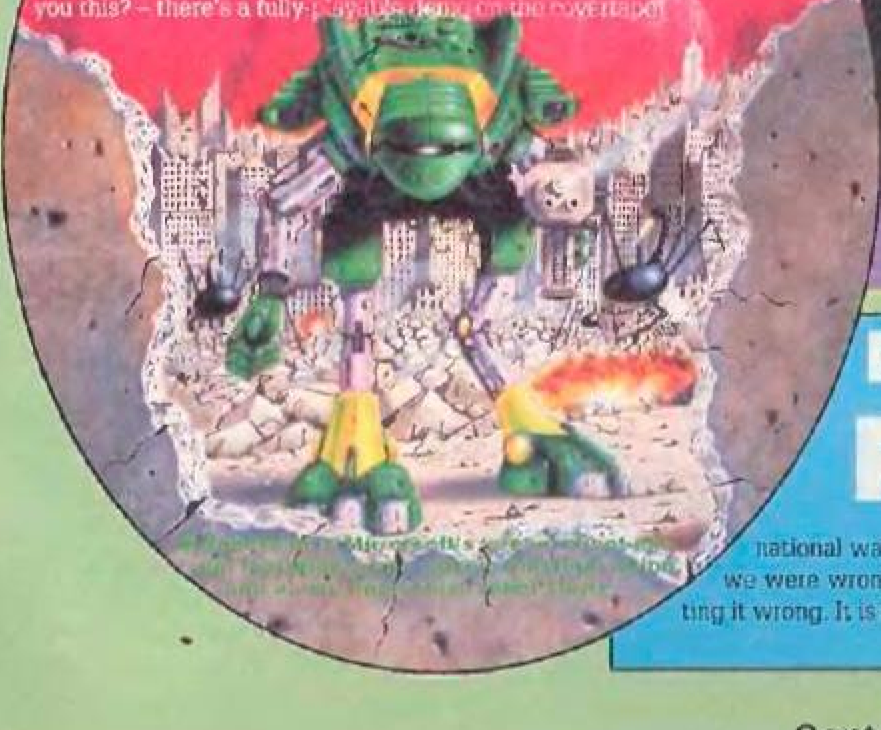
The Amstrad version, believe it or not, is being ported from a Sega Master System and looks all set to be the funniest shoot-em-up ever. Expect it in the shops near the end of September.



ROBOZONE

In the future, the Earth is a wasteland of nuclear devastation. Human life is all but gone, only robots and mutants remain. The mutants are highly dangerous lunatics and should be wiped from the face of the Earth.

You control a gigantic robot in this horizontally scrolling shoot-em-up. The game itself looks a bit like old chestnut *Trantor*, but the preview version we have plays like a dream – in fact, why are we telling you this? – there's a fully-playable demo on the covertape!



BLUES BROTHERS BLUES!

Remember last month's *Grapevine*? When we reported on the *Blues Brothers* licence? Well we made a boo boo! We told you that Entertainment International was releasing the game. Unfortunately, we were wrong. EI gave us a call told us off for getting it wrong. It is in fact a Titus license. Oops.



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- The software also features some extra BASIC commands.
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- 64K unit brings 464 up to CPC 6128 memory configuration making a much larger software base available. Will work straight off with many programs designed for this unit (including OCP Art Studio - see Ad.).
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- On screen menu driven drum kit makes composing drum sounds easy for anyone to do!
- Just plug the output into your Hi-Fi, cassette player, etc. and that's it - your Amstrad is a drum kit!!
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AMS MSE 3

The RAMBASE Story

John Fairlie wanted a database that stored all its files in the 6128's second bank of RAM. Starting with a rather good little public domain 64K database, DATAFILE, he developed RAMBASE, an ultra-rapid database for owners of 128K machines. (Both programs are featured on this month's *Action Pack*.) This is how he did it...

I wrote RAMBASE because I wanted a program that used the second 64K of the 6128's memory. A database that only uses the first 64K is always a compromise between program facilities and space for data. RAMBASE is the solution.

- **If you only have a 464, then you can't use RAMBASE. However, you can use DATAFILE, the 64K database that prompted me to write RAMBASE. This is the best 64K database that I have come across in the Public Domain.**

For RAMBASE, I decided at the outset that the second 64K would contain only the record data, and that the field lengths would all be the same, i.e. the whole operation would be based on standard Bank Manager commands.

On the drawing board

The starting point was to rig up the menu screen. I rough out on plain paper what I want each screen to look like, then try and fit it on a piece of squared paper 25 rows x 80 columns wide. I amend this with pencil and rubber (impressive, eh?) until it looks about right, adding boxes as required. I then write the program code, taking the LOCATE and MOVE coordinates directly from this squared paper.

The menu is preceded with commands to set colours, mode etc, and followed by commands to input and act on the menu choice. I always add a program exit routine, and this resets the colours, windows etc to the Amstrad defaults.

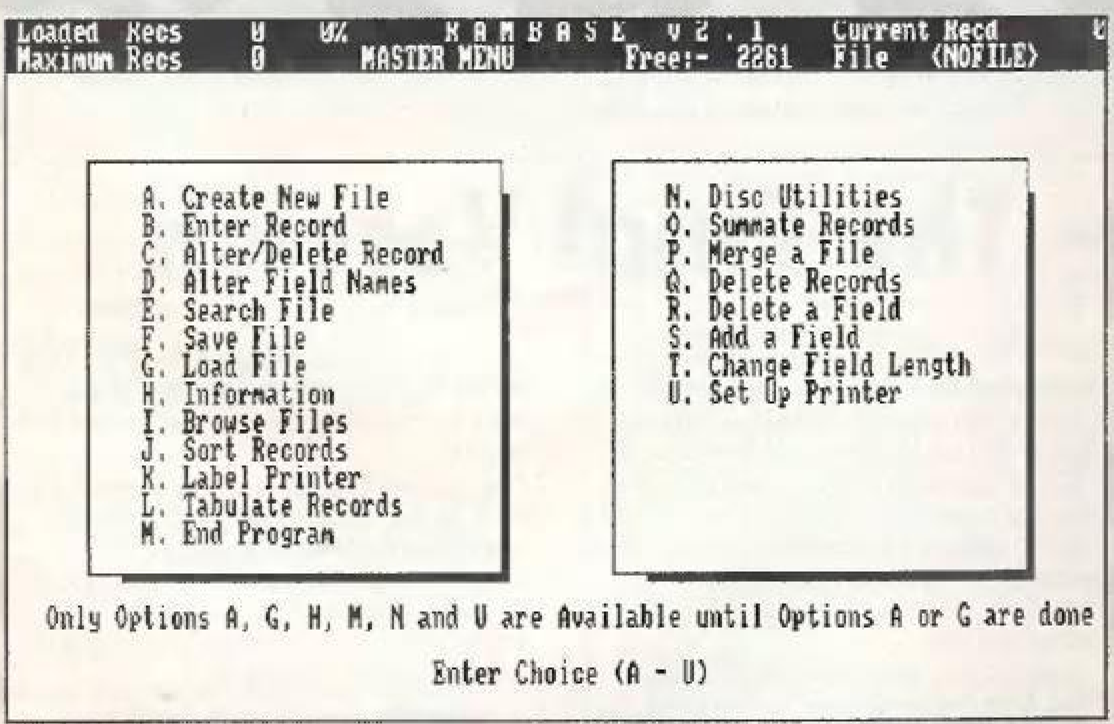
Programs should really be written (we are told) by having everything as a GOSUB and a very small kernel which calls all the sub routines as required. I adopt this philosophy to a degree. Each menu selection is a GOSUB, and I have other GOSUBs for common requirements.

For each option on the menu I start by adding a REM statement to head up the sub routine, then a one-line print statement to say 'This will be the code to add data' for example, a CALL &BB18 to wait for a keypress, then a RETURN. This proves that the program is taking the necessary action on the selections made, and returns to the menu after the action is complete. It also gives me a 'space' in the program for each sub routine.

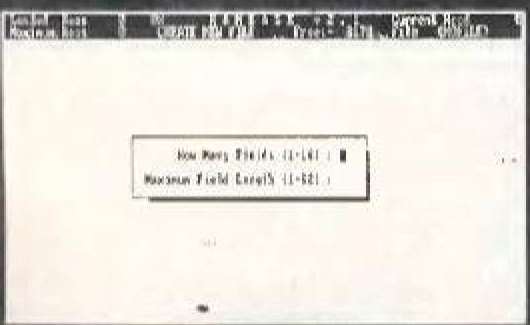
The title bar at the top of the screen is drawn by a sub routine. This updates the title bar and clears the screen at the same time. I then call this sub routine from the menu choice sub routines as required.

- **You'll have to supply your own copy of BANKMAN from your Amstrad's system disks – simply save it on the same disk as your RAMBASE files.**

The bones of the program were then taking shape, with the 'look and feel' of the program becoming evident.



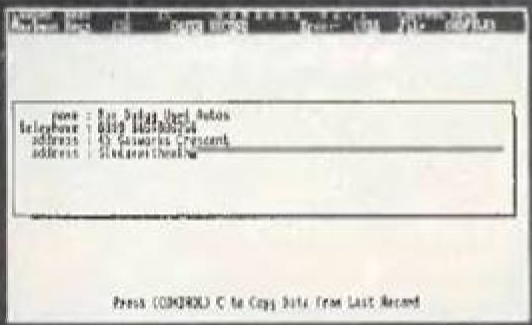
- **RAMBASE's main menu, offering every function you need to create, maintain and store your own database files.**



- **Your first job when you create a new database file is to define the number of fields in each record and their length...**



- **...now you give each field a name. This acts as a prompt for the right information when you come to type in records later...**



- **...entering information is easy. Once your records are set up just type in the info, pressing Return to go on to the next field.**

Downwards compatibility

One of my primary intentions was to make RAMBASE compatible with the DATAFILE database that I had, which stores all data in an array in the first 64K. It was therefore the first task to write the Load and Save routines that could be proved with existing database files.

At this stage, programming in features is a bit of a chicken and egg situation. You have to do two or three options simultaneously before you can prove that all work satisfactorily. In my case, if a database file could be loaded into RAMBASE, then saved back to disk, and still be able to be read and proved with DATAFILE, then both the Load & Save options must be OK.

Most of my programming is done on paper, remote from the CPC, then typed in and debugged as a separate exercise. This means that I get it working in theory only at first, then if it appears to work OK when typed in, this is proof of the theory. If you just keep trying options at the keyboard until the code appears to function, it will be less structured and more difficult to change or debug.

The Load File operation includes making all the strings read from the disk up to the full field length with spaces. The Save operation strips them all off again to save on disk space.

The Browse option involved all the calculations that are needed to place records centrally on the screen. This involves the derivation of four graphics coordinates for the corners of the box drawn round each record. These figures are calculated from the field length, number of fields etc whenever a file is loaded, or a new file created. The variables then remain unchanged until another file is loaded or created.

The Browse option involved, more importantly, the derivation of the BANKREAD and BANKWRITE commands that take record and field numbers as their parameters. Bear in mind that BANKREAD is normally:

```
|BANKREAD,@r%,a$,stringnumber
```

Here, r% is a number returned (that I have not used), and a$ is the string read from the RAM, i.e. after the BANKREAD command, a$ holds the data you wanted.

If your database contained records of say, four fields, then stringnumbers 0,1,2, and 3 would be record 1, stringnumbers 4,5,6 and 7 would be record number 2, and so on. The standard commands needed were therefore:

```
|BANKREAD,@r%,a$,(recordnumber-
        1)*numfields+fieldnumber-1
|BANKWRITE,@r%,a$,(recordnumber-
        1)*numfields+fieldnumber-1
```

These commands have been used throughout the program in FOR/NEXT loops to process one or more records, i.e. with variables for the record and field numbers. The variable a$ has to be set to SPACE$(fieldlength) whenever it may have been shortened, i.e. after saving to disk, otherwise it stays the same length and is completely overwritten at each BANKREAD/WRITE operation.

In the Create New File option the maximum number of records and other variables are calculated or reset, and the |BANKOPEN command issued to work in terms of the new field length.

I added a Free Bytes display to the status bar so I could see how many bytes for program code I had left. This remains to no ill effect.

Marking your cards

During the programming I knew I didn't have to worry too much about making the code as compact as possible. I programmed each option to be simple and foolproof, even if it did mean extra code.

I soon gave up the concept of having 'marked' records. It was not viable to store a mark in the second 64K, and an array in the first 64K would have taken up too much space. Looking back now, each record would require not one byte to store a mark, but only one bit. Nevertheless, the programming would have been quite involved for someone who has promised themselves that machine code, (and poking values above HIMEM) is beyond the scope of mere BASIC programmers like myself!

The Search File operation uses the BANKFIND command for simple searches. This has the advantage of finding occurrences of the required string in ANY field, but alas does not cope with multiple character wildcards. BANKFIND allows a single character wildcard, so I kept to this as a compromise to start off with, and later added a wildcard search that has its operation based on the INSTR command.

The Output Options

The output options were the most involved, yet the most satisfying to write.

Typical database output is merely a print of all fields of all records, one under the other. Apart from using a ream of paper, this is next to useless.

RAMBASE2 – The Final Version

Having got all the essential features programmed in, I moved on to develop RAMBASE2. After all, the whole philosophy was that extra database functions could be added with no loss of space for record data. The unused area in main memory (15K at that time) was wasted as long as it contained no useful program code.

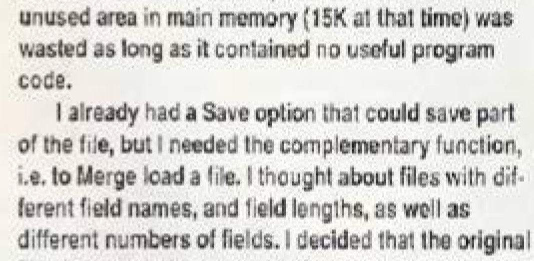
I already had a Save option that could save part of the file, but I needed the complementary function, i.e. to Merge load a file. I thought about files with different field names, and field lengths, as well as different numbers of fields. I decided that the original file characteristics must remain unchanged, including the default filename. I also had to cater for the fact that there may only be space in the RAM for part of the merged file. In this case it would be helpful to merge as many records as possible, so that's what I went for. This option makes use of the fact that the CPC, while not having Random Access Filing, does allow you to read PART of a file in sequential mode. The field names, and details of field length etc. are all held at the start of the file. If merging is not proceeded with, the file is simply closed with CLOSEIN, and no harm done.

My next major addition was code to Delete a Field, Add a Field, and Change the Field Length. All, of course, had to be viable with data in the RAM remaining intact. For example, in the Add Field option, all data has to be stepped forward in the RAM starting at the end of the file. I wanted to be able to add a field anywhere in the record, and not just at the end of it.

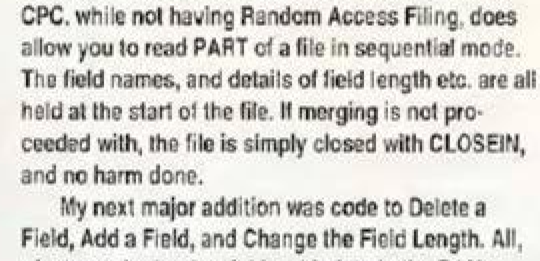
Changing the field length was similar in approach. When the new field length was shorter, we had to step through the RAM from start to end, and vice versa when longer. The fact that the RAM can be written using one field length, and read back using another is the vital key that allows this facility to be written. The method is simply to:

```
|BANKOPEN   at the old length
|BANKREAD   the string
|BANKOPEN   at the new length
```

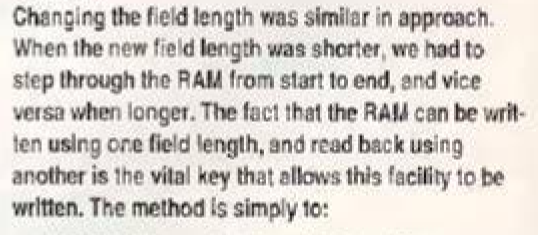
● RAMBASE lets you tabulate your records to check column widths, the number of fields and their names.



● RAMBASE lets you catalogue your disks for both database and ordinary files, and erase files - all without leaving the program.



● RAMBASE has 26 pages of on-line help, thanks to its accompanying text file, RAMBASE.DOC



The Tabulate Records option is based on one line of output for each record, and columns for each field. With a field length of, say, 25 characters, then it was plain to see that the width limitations of both screen and printer would soon be met. I therefore decided that each column need only be as wide as the maximum length of data it has to hold. So a field that merely contains a Y or N does not need to take up 25 columns of output width. The principle was therefore set. The user inputs the records to include in the output table, and then the fields for each column. The program then looks at each piece of data to see what width the column needs to be.

Data for field numbers, and maximum widths are held in two temporary arrays, 12 deep. Erasing these arrays after the print ensures that next time Tabulate Records is selected, they are re-dimensioned to all zeroes. The program makes use of this – it keeps printing columns until the next one has a number of 0. The maximum widths are used to TAB to at print time. Each, of course, has to be the total of the last value plus the current maximum width.

The only enhancement I made to RAMBASE's Tabulate option is the inclusion of a Record Number which is optional.

The other output option (Label Print) is more conventional. Again, the fields, or blank lines, the user wants to include in each line of a label are held in an array. Along with optional field names, this output is more flexible, and hence more useful than other databases cater for.

Both my outputs can be to screen, printer or disk file – easily accomplished using the #stream numbers that CPC BASIC allows. **AA**

```
|BANKWRITE  the string
```

and all this happens in a nested FOR/NEXT loop for each field of each record.

By now, program space was becoming short. My final option was to set up the printer by taking codes from the user and sending them to the printer. So the user inputs a string such as:

```
27 64 27 49 27 83 1
```

and the program splits this up into separate strings for each number and send CHR$ for that number. Most codes are two digits, i.e. 27, but some are three, and some one. I used INSTR to find the position of the first space in the input string (in position 3 in the example above), LEFT$ to isolate it, VAL to change it to a number from a string, and finally PRINT #8,CHR$ to get it to the printer. I then used RIGHT$ to capture the remainder of the string, and a loop back to process the next code in the same way.

BEGINNERS' CORNER

Databases are extremely useful ways of storing information about people or objects or facts. With a database you can not only organise the information efficiently, you can access it very quickly, basically by 'searching' your records for names, dates, objects etc.

In fact, databases are possibly one of the most important business applications of computers. They can range in size from a small system running on one computer – a builder keeping a record of all his clients, perhaps – to vast and complex networks of terminals, all connected to a single mainframe machine, as used by building societies and banks.

How a database is structured

You can think of your database as being like a box full of record cards. In computing terms the box is a 'File'; each card is a 'Record'; each Record contains 'Fields' where specific pieces of information are entered.

In the case of RAMBASE and DATAFILE, you start off by creating a New File. When you do this you are asked to enter the number of fields (the number of items of information you want on each record) and the maximum field length (if you make this no longer than necessary it cuts down on the final file size and the disk/RAM space it takes up). So if you were compiling a list of your friends' names, phone numbers and addresses, you'd need one field for their names, one for phone numbers and, say, six for their addresses (if you're going to put streets, towns etc on different lines.

How about the maximum field length? Well, how long do you think the longest line is going to be? 20 characters? Right, enter 20.

Next you're asked to name each field. This will give you a useful reminder when you come to input your records as to what goes where. Why not call Field 1 'Name', Field 2 'Telephone' and the rest 'Address'.

Once you've done that you go back to the main menu. Now you can start adding records. When you select this option the screen displays a blank copy of the card you've just created, on which you can type in all the relevant information. Want to enter another record next? Go ahead. Alternatively, you may want to save these records as you go along, in which case go back to the main menu and select the Save option before you continue.

When you Save, all the cards (records) you've typed in are saved as one file. When you Load in a File (again, from the main menu) the program copies in another batch of Records. So you might, for example, have a file of all your friends' names and addresses and another (using a different style of card, maybe) for your collection of Amstrad games – how much they cost, when you bought them, what you thought of them and so on.

Room in the RAM?

Where DATAFILE and RAMBASE differ is that DATAFILE is designed to work on machines with only 64K of memory. RAMBASE, however, uses the extra 64K of 128K Amstrads to store database files of any size in the machine's own memory, making it very much faster to use.

The options

Both DATAFILE and RAMBASE offer lots of features, including the ability to alter existing records, change field names, search files for particular words, browse through your files, sort your records and print them out.

RAMBASE, however, does a few more things. Its Disk Utilities option lets you catalogue and erase files on your disks without even leaving the program. It will also let you merge files, delete records, delete fields and change field lengths in existing Records.

Which files on the covertape?

DATAFILE works as a stand-alone program on both 64K and 128K machines. RAMBASE, however, consists of three different files: RAMBASE2.BAS (the program itself), RAMBASE.DOC (the Help file accessed from the main menu) and R2D2.BAS (a short program for those with two disk drives). You will also need to copy BANKMAN.BIN from the Utilities disks that came with your 6128 onto the disk, since RAMBASE uses this program.

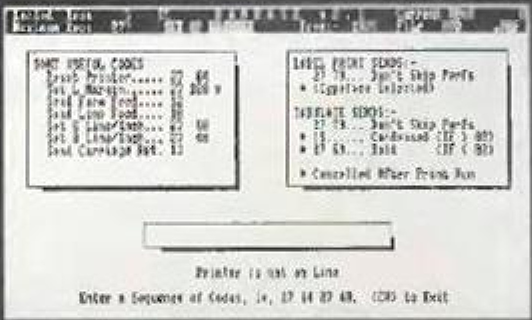


● Running databases is possibly the single largest use for computers in business. DATAFILE/RAMBASE teaches you the basics of what they are and how to use them.

● You can search all the records in a file via the Search command, accessed from the main menu.



● Wondering how to set your printer up to print those records? RAMBASE has a printer set-up function too.



ADDITIONS WELCOME!

I hope you enjoy using RAMBASE. I have left a small amount of space in case anyone wants to add their own specific routine. One I have kept separate so far is for use with two disk drives. If you write any useful additions, let me know, I may even knit them all together in an overlay file!

Forum

Got any technical queries? Are you stumped by your computer? AA's very own technical wizard ADAM WARING will attempt to sort it out for you. Or maybe you want to pass on some tip you've discovered to the rest of us? (Send us a good 'un and you could be in line for a £25 mail order voucher!) Write to: *Forum, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW*

The second drive

I have lifted the curse I put on you after you altered your transfer to disk program. The reason for the curse was that I have a second drive that uses nice cheap disks. The new transfer program wanted to load everything off drive A. You may have noticed (drive B owners certainly will have) that there's a world of difference between saving a program to drive B and running a program from drive B. However, providing you don't alter your transfer program again, I have the answer.

First, use the transfer program supplied with the covertape to put all files onto drive A. Then use your favourite file/disk copier to transfer all the files onto drive B (don't use any 'big' disk formats yet). Now type in one of the two short BASIC programs. The first program is for the *AA69* and the second for the *AA70* covertapes. If the programs are saved as "DISC" then it makes it easy to run the menu programs:

```
10 REM Change AA69 menu to drive B
20 REM transfer all files to drive B
30 REM then run this program
40 MEMORY &7FFF
50 LOAD "MENU"
60 POKE &82FA,&C2
70 CALL &80D5
```

```
10 REM Change AA70 menu to drive B
20 REM transfer all files to drive B
30 REM then run this program
40 MEMORY &7FFF
50 LOAD "MENU"
60 POKE &831F,&C2
70 CALL &80E8
```



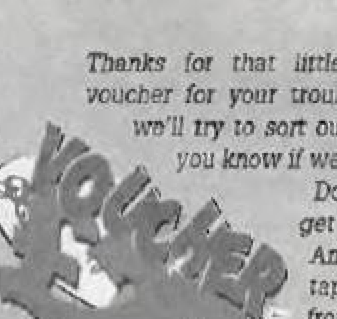
● Covertape problem 124(b) solved! (At least for issues 69 and 70...)

After making sure that they run on 'normal' format now you can experiment with any 'big' disk formats you might own. But remember, you can only have one covertape per disk/side as the program names are the same.

For those who want to work out the parameters for any future covertapes, follow these instructions. The poke will always be &C2. Look for the letters 'DIS' in the program "MENU. BIN" using a disassembler (the one in *AA69* works a treat). They'll be around &8300. Note the address of the 'D' in 'DIS'. It's this number that you use for the poke i.e. &82FA,&C2. The CALL address might be different as well so use one of the header readers that *Amstrad Action* has published to find the entry point of the program "MENU. BIN" and replace the CALL with the new number, i.e. CALL &80D5.

Philip Bowden
Hillingdon, Middlesex

Thanks for that little fix, Philip. Have a voucher for your trouble! As I said before, we'll try to sort out the problem, and let you know if we get anywhere.



Don't forget that you can get disk versions of the Amstrad Action covertapes anyway directly from our duplicators.

For all the details, plus the address to write to, check out the Action Pack pages this issue...

Tape tribulations

I recently purchased an Amstrad 6128+ computer. I have had the computer converted by WAVE so that I can load software from tapes. However, I tried all methods I can think of to try and load the software package you supply with your magazine onto disk – it does not work!

Could you possibly supply a listing that will enable me to do this, or is it not possible to do so?

J Botwood
Wednesbury, W Midlands

Good Lord! Just when we thought it was safe! We reckoned that our specially commissioned fast loader on the covertape would solve all those horrendous loading problems, but it was not to be. It seems that the converted Plus machines simply aren't able to transfer the covertapes, though they load them without difficulty.

We don't know why, but we're working on it. Hopefully, we should have the problem sussed soon. As a matter of interest, the commands |TAPE.IN, |TAPE.OUT, |DISC.IN and |DISC.OUT are not supported on these machines, so we think that may have something to do with it.

In the meantime, though, all I can suggest is that you buy the disks directly from our duplicators. They are available for the sum of £2.00 – about as cheap as you get for blank disks. See the covertape pages for details of how to go about buying these disks, and the latest on the tape to disk transfer problems – we'll let you know just as soon as we've fixed it!

Know your rights

I have just written a program on my CPC and wish to sell it to other users. However, I am unsure of an important point. Is it illegal to display a copyright message in a program if it is not registered under the Copyright Act? Surely as the owner of a program I must have some rights!

If I were to enter the program into the Public Domain, could other users make slight changes to the program and then redistribute it getting all the credit?

Now to something completely different. Can you print a small routine which would allow me to use a flashing cursor?

Now back to PD for a moment. I wish all those readers who claim to run PD libraries would actually reply. I have sent off to a number of these libraries enclosing stamped addressed envelopes, and one or two have not bothered to reply.

David Anderson
Glasgow

Anything you write is automatically your Copyright. You do not have to register it anywhere, and you are perfectly entitled to put any message you like in your program.

You can attach any rules you like to a program you place in the Public Domain. The common ones are that the program must not be altered in any way, and must not be sold for commercial profit. Any deviations from this rule should be stated clearly in the program or its accompanying files.

A flashing cursor, eh? Oh, all right then. I assume that you want it for entering a line...

```
1000 X$="" X=1:LET Y=10
1010 LOCATE X,Y:PRINT " "
1020 A$=INKEY$:IF A$<>"" THEN 1050
1030 LOCATE X,Y:PRINT CHR$(143)
1040 GOTO 1010
1050 IF A$=CHR$(13) THEN RETURN
1060 LOCATE X,Y:?A$
1070 X$=X$+A$:K=X+1
1080 GOTO 1010
```

The program should be used as a subroutine and accessed with a GOSUB. It allows you to type in a string, with a flashing cursor as a prompt, and will return when you hit enter. Your entry is then stored in X$. Posh, eh?

The majority of PD libraries do their damnedest to operate an efficient and useful service. Some, alas, don't 'play the game'. A pity, as they just waste everybody's time.

Expanding your horizons

Datel Electronics do a 256K memory expansion for the 6128. Having phoned them I have been told that two at a time can be fitted back to back in the expansion port.

Having got these two, could I still plug in and use my eight ROM Microgenic ROM board and EPROM programmer, or would I have to unplug one or the other? All of the ports are used, plus a Siren six ROM board hanging out the back. Would I have problems with bank switching?

If not two memory expansion things, what about just one plus the rest of the stuff. Would I get it all to work?

W Kinsman
Rochford, Essex

Blimey! What do you want to do, run a power station? I don't think you'll have problems with bank switching, because ROMs are switched in a different way than RAM is.

To be completely honest, I couldn't guarantee that everything would work together, but I don't anticipate any problems – the only real way to find out is to try it.

Broken typewriter

The *AA Toolbox* program *Typewriter* does not work on my 464 Plus. Could you suggest anything?

Tristian Kidby
Dagenham, Essex

When Typewriter asks the question 'Am I a 464 (Daft Question!)' answer 'no'.

The reason it asks the question is because of the differences in the machines' ROMs. However, all the computers in the Plus range use the updated 6128 ROM – even the new 464 Plus.

PCW Printing

I am writing to answer Richard Gough's question in the July issue of *Amstrad Action*, about using his Dad's 9512 printer on his 6128. He can't connect the printer to his 6128, but he can transfer ASCII text files (such as this letter) on to his dad's 9152 to print out. Here is the way to do it:

1. Prepare an ASCII file with the text you you want on it using *Amsword* or any other word processing program and save it to disk.
2. Start up *Locoscript* on the 9152.
3. Put the disk with the file on it in to the 9512 and select the 'disk change' facility.
4. Create a new document and select the 'actions' option.
5. Use the 'insert text' command and insert the text from the file you made on the 6128 into the newly created document.
6. Print it!

(This letter was done in this way on my dad's 6128.)

Peter Fulton
Hepworth, Norfolk

Thanks Peter. At least that should help with Richard's letter printing. If anyone has any suggestion for printing other things via a PCW printer, then let me know!

On to higher things

I have recently decided that I would like to upgrade my CPC464 to the 6128 level. Looking at the advertisements, it would seem that there are a number of ways to add extra memory space, but I am not sure what would be the correct method.

Could you advise me, please what I should do to make the 464 able to operate 6128 programs. I have added a DDI-1 Disk drive.

J H Cleal
Hove, Sussex

There are three things you need to 'turn' your 464 into a 6128. One of them you have already – the disk drive is essential.

The next most important thing is the memory expansion. You need an extra 64K to boost your machine to 6128 standard. Amongst others, the 64K expansion from Datel Electronics will do the job. The unit costs £49.95 and is available from ***Datel Electronics Ltd, Govan Road, Fenton Industrial Estate, Stoke-on-Trent ST4 2RS. Tel 0782 744707.***

The memory expansion alone will make your machine compatible with a good many 6128-only programs. Advanced Art Studio, for instance, will work on a memory expanded machine.

However, for even greater compatibility a 6128 ROM is required. There are a number of differences between the 464 and 6128 ROMs. Notably, the 6128 has several extra BASIC commands, so a program written for the 6128, even in BASIC, won't necessarily work on the 464. Prices vary for these ROMs depending on the supplier and availability; try ***WAVE, 1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR. Tel 0229 870000.***

Hope you get your beefed up machine up and running without too many problems!



● Your 464 can do everything a 6128 can do. All you need are the right bits and pieces. Add a disk drive, extra memory and a ROM upgrade, and *viola!*

Free for all?

I would like to ask you a couple of questions concerning the Public Domain.

1. Are demos of games, e.g. *Total Recall*, that appeared on the *AA* covertape public domain software?
2. Are the *Type-Ins* in your magazine public domain software?

Richard Wood

1. No! Don't assume that a program is Public Domain simply because it's been given away on our covertape. The software house which developed the program very much retains the copyright of any demos of games they have. If they give permission to put a program in the Public Domain, then it's a different matter. This has happened in the past, and Scull PD has several game demos in its books.

2. Yes, on the whole. We say that all programs printed in our Type-Ins pages are Public Domain, unless the author who submits the program specifically says not in a REM statement at the top of the program.

Group activities

I have a friend who runs a group activities club for single people of all ages. It has over 300 members and it is a problem to retrieve information. I suggested the 6128 might be able to do the job. Some things that it would need to do are:

Face it

Your July issue discussed the compatibility of our Multiface II with other hardware and software being used with Amstrad CPCs. You answers were, as always, very accurate, but I felt we could perhaps expand and sum up the situation.

1. To the best of our knowledge, the Multiface can be used with any existing hardware and software. We do not say this to encourage piracy – may we take this opportunity to stress that the Copyright Act 1989 makes it illegal to reproduce or infringe copyright material without the clear permission of the copyright owner. Our concern is that the compatibility of the Multiface should never obstruct you from using your CPC to the fullest – and if anything, helps you get a lot more from your CPC.

2. The Multiface can remain attached at all times and can be made 'invisible' by pressing the red button followed by 'R' from the menu.

3. Making the Multiface invisible does not make it ineffective – the point is that the Multiface can *always* be activated, irrespective of whether or not it was made invisible. Just press the red button any time you like.

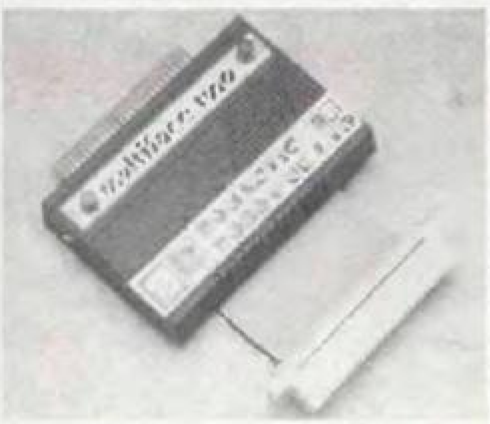
4. The only time the Multiface *must* be made visible is for it to re-load any program that has previously been saved with it. The Multiface is automatically made visible on switching on your CPC or by pressing the 'Reset' button.

Bear in mind that programs saved by the Multiface will not reload without the Multiface being attached – you can never pass on 'Multifaced' copies of anything!

If you need any more details, our technical department at 081 200 8870 will do our best to assist you.

Alexander Goldscheider
Romantic Robot

There you go, straight from the horse's mouth. Exactly what the Multiface is capable of. Thanks to Alexander and all at Romantic Robot for making the situation clear.



● The Multiface II is a powerful piece of kit. Find out *exactly* what it can do – direct from Romantic Robot itself.

1. Names.
2. Address.
3. Some details e.g. car owner, phone number.
4. Call up all members in a specific area
5. Call up/print out members overdue on subs and due to renew subs.

Can you confirm that the 6128 is up to this task and if there is a program, commercial or PD that exists to do the job.

J Gamble
Rowey Regis, West Midlands

What you need is a database – and spookily There's one given away on this month's covertape!

As long as you set it up correctly, you should be able to get it to do all of these things. Follow the article on page 23 this issue to get the most out of Rambase II.

There may well be a more specialised database available that's been designed with looking after club memberships in mind. If anyone knows of one, or has written one for their own use, then tell me about it!

Big disks

I have just typed in the *Ultraform* program in this month's *AA* and have some questions on the program.

Ultraform formats the disk to ten sectors. I have tried to use the disk in CP/M but continue to get the message 'disc not formatted or faulty'. Is it possible to adapt CP/M to ten sectors without the disk reformatted to 178K?

I have a disk that now fails to load or cat. When verified using *Disckit3* the message 'Disc error Track 0, Sector #00 – Data error within system track' appears. This disk contains some of my most important files. The only way I can CAT the disk is to press 'R' at the first 'Retry, Ignore, Cancel' and then 'I' at the second. Can you help?

Is there any commercially available or PD program that formats disks to 1.4Mb for the 6128?

I want to use two joysticks on my 6128 but I haven't got a JY2. Is there a device available, or has anybody out there built one? I would be grateful as my local computer store say that they don't know of such a device.

Ranji Mistry
Bradford

CP/M expects the disks it uses to be the standard 169K system format. It's very rigid about this, and won't take any nonsense with funny formats. I'm afraid that you'll have to stick to the normal format when using CP/M, unless anybody knows better, that is...

Your disk sounds very poorly indeed. It sounds as it the system track, which contains the program directory, is corrupted. Try and transfer all the programs you can onto a freshly formatted disk. Once you've salvaged your data, reformat the old disk – even then it might still be dodgy if the fault is on the surface of the disk rather than with the information. Here's some good advice: always keep a back-up of important files – otherwise you're just asking for trouble.

1.4 megabytes? That's a bit of a tall order! It's nearly ten times the specification that the disk drive is designed to work to. It's all well and good squeezing an extra 20K or so out of the system, but you'll never get an increase of that magnitude. Sorry!

What you need is a joystick splitter. Check out our mail order advertisers to see if you can't locate one.

A joy to work

Back in the December issue (*AA63*), in *Forum*, I noticed an article called 'No joy with joysticks'. I decided to whip up a little program to help out. Here it is:

```
10 MODE 1:PAPER 0: PEN 1: BORDER 0: INK 0,0:
   INK 1,26: CLS
20 LOCATE 5,8:PRINT "JOY (0)": LOCATE 25,8:
   PRINT "JOY (1)"
30 WHILE INKEY(47)=-1:a=JOY(0):b=JOY(1):LOCATE
   5,10:PRINT BIN$(a,8):LOCATE 25,10:PRINT
   BIN$(b,8):WEND
```

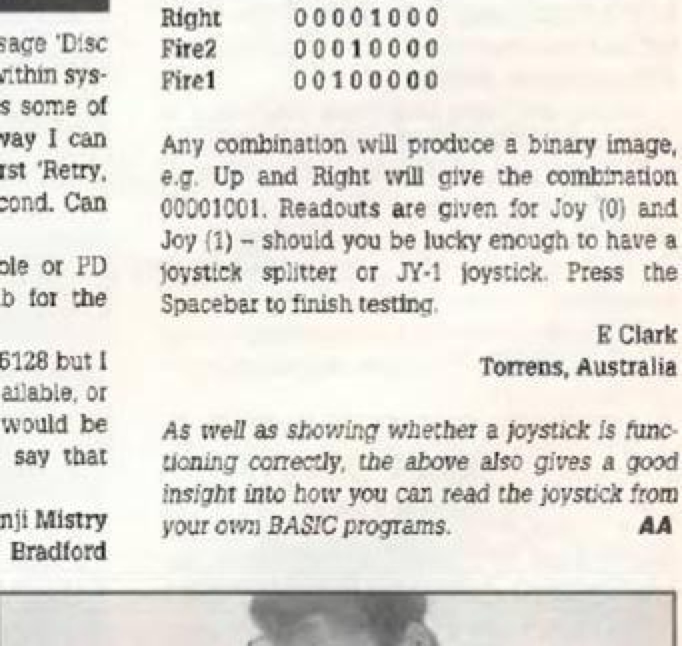
This program enables you to check that your joystick switches are working correctly. To verify this, run the program and see if the bits correspond:

Bit no:	87654321
Up	00000001
Down	00000010
Left	00000100
Right	00001000
Fire2	00010000
Fire1	00100000

Any combination will produce a binary image, e.g. Up and Right will give the combination 00001001. Readouts are given for Joy (0) and Joy (1) – should you be lucky enough to have a joystick splitter or JY-1 joystick. Press the Spacebar to finish testing.

E Clark
Torrens, Australia

As well as showing whether a joystick is functioning correctly, the above also gives a good insight into how you can read the joystick from your own BASIC programs. **AA**



● There's no need for that! Test your joystick without performing major surgery on it. E Clark's program checks out those faulty switches for you.

Ask Alex

Welcome to the section of the mag where I try to answer all those beginners' questions that aren't techie enough for Adam. And in case you've been wondering what happened to *Ask Alex* last month, I got my summer break at last! And yes I know you all missed me terribly, but I can't possibly go without my summer hols. But let's not waste any more time. Here's what found its way into the post-bag this month...

WHAT IS A 'SPECTRUM PORT'?

A silver-tongued cavalier by the name of Mike Brown, who lives in Truro, Cornwall, offers this little gem to all new readers of *Amstrad Action*:

"I have a tip for other beginners. For the small sum of £10 send off for some back issues of Amstrad Action. Read these thoroughly from start to finish (including the adverts) and even though you won't understand some of the articles and letters the first time, you will gradually start to pick up most of the information you need as many of your questions will already have been answered in earlier editions of the magazine..."

Hmm, Mike, a PR company couldn't have made a better job of writing an advert for AA backs issues, but I'm not so sure that I should print such a blatant piece of ego massaging! Still, your heart's in the right place and it is a sound piece of advice.

Mike continues "Now for a silly question. What does Speccy port mean? I think it means crappy graphics, but why is it called Speccy port?"

Nothing to do with the Spectrum, Mike, except in the sense that the software code has been 'ported' from the Spectrum to the CPC. 'Ported' is simply a word describing the transfer and conversion of existing software from one computer to another – alright? In this case, it usually means that the graphics are adapted from those on the Spectrum version.

WHAT IS AN ARCHIVER?

Jonathon Farrel of Weymouth in Dorset writes: "What is an archive? As in archiver in the *Type-ins* section of *Amstrad Action* issue 65? If I bought a disk drive (I have a CPC464) would I have to buy a Multiface to copy tape software to disk or will the archiver type-in do that?

"Are the disk-based games bought in the shops on 3-inch disks the same as those used in the DD1 disk drive? I hope you can help with my questions."

Well, Jonathan, an Archiver is a little utility program which takes tape software and transfers it safely to a disk. The process is known as 'archiving' to disk – basically, copying to disk. Tapes are notoriously slow when compared with other methods of backing storage ('backing storage' is the name given to storage devices such as tapes, floppy and hard disks, CD-ROMs and so on). By using an archiver program to transfer the programs to a disk, they will load much quicker and almost always without error.

Multiface is just another form of archiver (with a few bells and whistles...) but one which has been implemented using a hardware solution rather than software. That is, the Multiface uses special electronics to stop the CPC and copy defined memory locations to a disk. Archiver software does the same job but without the electronics.

Which is best? Well, the Multiface, being independent of the CPC, is a lot more capable when it comes to stopping and copying software.

Commercial games bought on 3-inch disk will work fine with your CPC464 and DD1 (if you buy one...) as long as they're intended for use with the CPC. There are other computers such as the Amstrad PCW range which also make use of 3-inch disks. Check before you buy.

CAN YOU POKE GAMES TRANSFERRED TO DISK?

Just time for a quickie to close this month's section. Ian Whiteford of Ayrshire wants to know if "...tape pokes which are in the cheat mode book be of any use once the tape games have been transferred onto disk?"

They'd be fine, Ian. Pokes work by 'pushing' numbers directly into RAM memory locations thereby changing a game's parameters. Of course there's no header load with a disk, but you should be able to poke first and load afterwards.

IS YOUR PRINTER 'EPSON-COMPATIBLE'?

Kevin Hale is a young man from Haslemere, Surrey, and he's having problems with a Panasonic printer and *Advanced Art Studio*:

"I have a CPC464 with Panasonic KXP1081 printer and recently I bought the *Advanced Art Studio* on tape. When I have finished a picture I go to print it out, but the name of my printer isn't in the program. Instead, I pressed user-defined printer, but then it doesn't print. I would be very grateful if you could tell me how to print because I need some pictures badly."

Well, Kev, user-defined printer means just that, you, the user, have typed in the correct sequence of control codes for the Panasonic KXP1081 (or whichever device you have), and the program is instructed to make use of them in order to drive your printer.

You haven't typed in any control codes and therefore the user-defined printer option doesn't work. Not surprising when you know why, right?

To get the Panasonic to reproduce your artwork requires fooling *Advanced Art Studio* into believing that the device is one for which it does have an entry in its printer list. Fortunately, that isn't too difficult. The Panasonic is what's known in the trade as Epson-compatible. Meaning that it uses the same control codes as an Epson printer, a company which sets the standards for dot matrix printers. Any software which provides a dot matrix printer option will also provide a an Epson driver to control it with.

Fire up the software. Make sure that printer is connected and on-line. Load a picture, and select print. When you're prompted for a printer driver select Epson (probably FX80 or LX80). All will be well.

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ACTION TEST

25 games in one issue! It can't be done! Yes it can – and here's just a few of them...

47

VIZ



Virgin



● Taste? What's that? Don't expect to find the answer in Virgin's licence of the incredibly rude and unfeasibly popular comic.

BUILDERLAND
Loriciel



32

● Melba is cute, tiny and thick as two short planks. Stop him walking into disaster by moving the scenery around. Sounds easy? Ho ho ho...

BUDGET BONANZA

● *17* blockbusting budgets get a going over this issue! Short of cash this summer? Well you don't have to go short of gameplay...

39



POWER UP
Ocean

34

● There are five games in Ocean's latest compilation. One of them's a stiffie, but boy, do the rest make up for it...







ocean

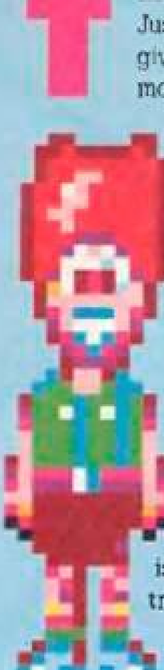
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BUILDERLAND

LORICIEL ■ £TBA

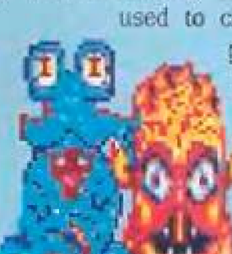


Those Frenchies have done it again. Just when you thought Loriciel had given up the ghost and shuffled off its mortal CPC coil, along comes another stonking little game. The game tells the story of Melba, a typically cute little sprog who has to make his way across the treacherous regions of *Builderland*...

Builderland is weird. It is full of mysterious objects and bizarre villains. Melba, the hero, walks along in a straight line as the landscape scrolls from right to left. In his way are various obstacles. Melba isn't actually under your control at all – he simply trundles along of his own accord, picking up the odd bit of fruit as he goes.

Instead, you control a flashing cursor which can be moved anywhere on the bottom two-thirds of the screen. The objects lying around on the ground can be selected with this cursor and moved anywhere you like. The objects you find all have specific properties and uses. And all of the objects you see have to be used in some way or another, even if it's just to get them out of Melba's way.

The objects include bricks (of several varieties), bombs, springs and a plethora of other thangs. The bombs, once picked up, are immediately primed and will explode wherever they are placed. They can be used to clear a path through an immovable obstacle, or to kill any baddies you come across – bombs should be placed carefully, putting one in the wrong place could spell disaster for poor Melba, trapping, or even killing the fluffy little blighter.



As Melba walks, the screen scrolls slowly along. Once he passes over an object you have placed, then that object "dies" and can no longer be used.



● Melba scales a recently-placed ramp. If you don't get it down in time, he'll walk into the wall and stay there until he runs out of energy.

This means you have to be extremely careful when and where you use objects. Golden bricks, for example, float in mid air and should be used to bridge chasms and firepits. The metal blocks, on the other hand, fall to the ground very quickly and careless placement might just squash poor Melba.

Ramps are very useful – Melba can't even climb the smallest hill and has to be assisted by these little metal wedges. That's the key to the whole game – using the various objects dotted around the landscape to keep Melba going.

The point of all this walking around is to deafeat the five monsters that inhabit Melba's land. These monsters, for some bizarre reason, can only be found in an as yet unbuilt house.

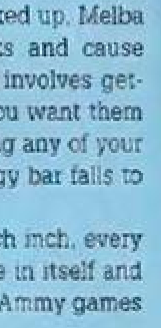
Melba's task is to find a pile of house bits and stick them together to build it. The bits are all found together and are assembled using the same method you use to place objects. When it's built, Melba walks through the door and faces the monster.

The monsters – obligingly enough – stand still and Melba has to drop things on them, *Boulderdash* style, to kill them. In the monster section, you will find little flames. When these are picked up, Melba can shoot supporting bricks and cause rockfalls. The puzzle element involves getting all the rocks to fall where you want them to, at the same time as not wasting any of your bullets. When the monster's energy bar falls to zero he snuffs it – simple, huh?

Nope, it's not simple at all. Each inch, every millimetre of this game is a puzzle in itself and this has to be one of the trickiest Ammy games ever.

What's more, the graphics are nice, cute and colourful, the sound decent enough and the presentation wonderful. This game is superb and presents a challenge that'll keep you going for months. Real hard!

Frank



SECOND OPINION

"Builderland looks a bit slow and boring until you get into it – after that, it really is addictive. Be warned, though, it's also very hard. You'll be swearing it's not possible before long! Rod Lawton



● Oh dear, Melba built the house, killed the monster... and walked straight out of the house into a fiery pit.



● In the end-of-level nastie's house and a puzzle presents itself... how to kill the monster without actually shooting it.

FIRST DAY TARGET SCORE

Defeat the first monster

BUILDERLAND VERDICT

GRAPHICS............ 81%
Neat, bright and well designed, they suit the game perfectly.

SONICS................ 80%
Classy spot effects and cutesy jingles.

GRAB FACTOR....... 85%
Immediately appealing and very addictive indeed.

STAYING POWER... 84%
So hard and so addictive you'll be at it for ages.

RATING 85%

Brilliant Lemmings variant with some really original features.

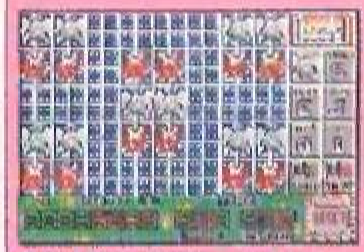
BOOLY

LORICIEL ■ £TBA

Booly is one of those quirky little French puzzle games that leaves you scratching your head at first and then mopping the sweat from your brow later. The weirdest thing about *Booly* is the concept.



● Three colours to juggle – and it's a nightmare!



● Cut little devils – can you get them all the same colour?

You're faced with a board containing an arrangement of squares linked together. Each square can be changed to a different colour – the idea is to make every piece on the board the same colour. On the first level that colour is grey. The problem is, when you change a piece, you also change its neighbours...

This can get very confusing, but basically it's like a two-dimensional Rubik's Cube. Each action causes a reaction. You have to figure out a way to cause reactions in such a way that the finished result is a board of one colour.

It gets very tough very quickly. The squares can each be connected to up to four others... it would probably all be very easy if you just sat down and thought about it...

Unfortunately, you have to play *Booly* up against a very strict time limit. This really gets the pulse racing and on later, harder, levels the time limit is very tough.

The graphics in *Booly* are very nice, given the basic game concept. The artists at Loriciel have pulled out all the stops and given each level a different look.

Booly is a challenging addition to the puzzle genre. It combines fierce mental gymnastics with arcade-style pressure, and yet the concept is simple enough to pick up in seconds.

Frank

SECOND OPINION

"It doesn't take long to work out what you've got to do, but a hell of a lot longer to actually do it! The plot's simple, but very nicely presented." **Rod Lawton**

FIRST DAY TARGET SCORE

Reach the second level

BOOLY VERDICT

GRAPHICS............ 85%
Attractive, colourful and quite varied.

SONICS................ 50%
Not really very much going on in this department.

GRAB FACTOR....... 89%
Instantly appealing and immediately frustrating.

STAYING POWER... 90%
Tons of boards and lots of levels mean bags of fun.

RATING 88%

An infuriating puzzle game – simple in concept but very nicely executed.



POWER UP

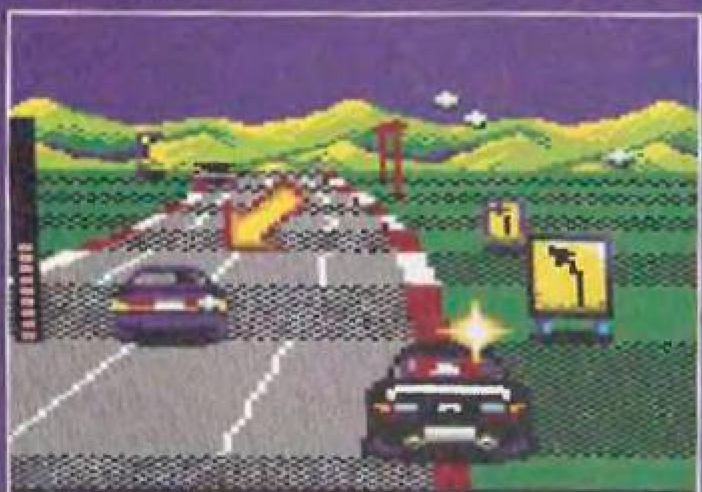
OCEAN ■ £15.99 cass

Power Up is the latest compilation offering from Ocean. The linking theme is arcade action – well, three of the five games are conversions of famous coin-ops, anyway...

Chase HQ

Chase HQ is a conversion of the brilliant Taito racing game. The game adds to the racing genre with a rather novel twist. Instead of bimbling around a race track, overtaking other racers and getting fast lap-times, you get to ram geezers off the road.

It's a *Miami Vice* type scenario. You are a cop and you're basically after some robbers (*wow, that's new! – ed*). At the start of each mission the robbers are miles away and heading for a life of sloth and debauchery on their ill-gotten gains. Fortunately, the police force has supplied you with a rather



● Screaming along country roads as you head after the infamous drug dealer. His racy sports car is no match for your turbo boosters. Go Mr. Driver!

groovy Porsche 928. And the thing is fitted with an outrageously powerful nitrous oxide turbocharger.

Using the turbo gives an unfeasibly large burst of speed. You can use this to catch up with the crims, or to ram them off the road when you do catch up. Various obstacles mess with your happy thoughts, though, as you tear through the streets, including cardboard boxes, stray fences and rolling tumbleweed. These all slow you down (but not as much as a collision with an innocent car).

The graphics are superb – the road is particularly convincing. The gameplay is amongst the most entertaining of any game in the racing genre. One of the best driving games on the Amstrad and a brilliant conversion of an ace coin-op.



Rainbow Islands

Another Taito coin-op – in *Rainbow Islands* you control an enormously cute character leaping from platform to platform. Your task is to save several islands from some diabolical fiend (also cute). You have at your disposal the most awesomely dangerous weapon known to man... a rainbow (hence the name).



The rainbows are used to dispatch enemies. To do this, you fire so that the rainbow traps any cute monster in your path. You can also walk on the rainbows, to reach otherwise inaccessible platforms.

You have to reach a goal at the top of every level. It's a bit of a race against time. If you hang around too long, you will be drowned as water floods the levels from the bottom upwards.

Scattered around each level are a variety of bonuses and power-ups. These include potions endowing the player with double, even triple rainbows. You can also pick up speedy boots, both enhancing jumps and speed.

There are lots of secret bonuses to discover, too. The game is a joy to play and the excellent graphics and sound add to the presentation no end. A real little corker.



● No violence here as you bounce through the Rainbow Islands. Cute monsteres hamper your progress everywhere you go so hit them with those stars.

Altered Beast

Just when you thought this was shaping up to be the perfect compilation... along comes Altered Turkey. Oops, sorry, Altered Beast. This game was converted from the unlikely Sega arcade hit. The game did well in the arcades, mostly due to big sprites and colourful graphics. It lacked content and was basically a very straightforward beat-em-up.

What about the Amstrad conversion? Oh dear. Here it is, in all its hideous glory, messing up an otherwise faultless compilation.

The gameplay is very simple. You control a muscle-bound hero, walking along a horizon-



● Err... no idea just what's going on here. It looks like some well dodgy sprites attacking some other, equally dodgy sprites.

Turrican

Intergalactic murder and mayhem is the order of the day in the ace Amstrad version of the classic Rainbow Arts shoot-em-up. The game received the ultimate accolade of Mastergame in *AA57* and so its reappearance on a compilation is excellent news.

The game sees you, Turrican, fighting aliens and monsters all over the galaxy. It involves much jumping and shooting across an eight-way scrolling rocky planetscape. You can pick up extra weapons, beam-up *R-Type* fashion and search for hidden bonus rooms.

Turrican can jump great heights and get hold of some quite devastating power-ups. Just as well, as the screen is usually full of very dangerous bad guys. The playing area is absolutely enormous and packed with tricky puzzles and fiendish bad-geezers.



● Turrican stands around waiting for something to happen. He won't have to wait long, however – there are tons of baddies waiting just around the corner, armed to the teeth.



It's quite easy to get lost in the maze-like levels and there are plenty of surprises waiting on later levels. The graphics are dreeeamy! They're colourful, well animated and beautifully designed. Sound is good, but the best part is the gameplay. So smooth, so well thought out and very, very big!

Turrican is superb and has to rate as one of the best Amstrad games ever. As part of a compilation, it's a complete barg!

X-Out

X-Out, just like *Turrican*, set new standards on the Amstrad when it was first released. It's a horizontally-scrolling shooter, but with enough originality and style to make it stand out from the crowd. It includes all the standard blasting action, but with a couple of novel extra features...



At the start of the game you are given a choice of four ships. These are unarmed initially and you have to equip them with the weapons of your choice. You have to compromise between what you can afford and what your chosen ship can carry. This gives the game an immediate element of strategy, something missing from many games of this type.

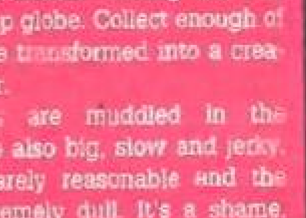
There are lots of aliens to destroy and some very nasty mid and end-of-level baddies to deal with. Everything in the game moves smoothly and at great speed. The scrolling is excellent and the animation, especially on guardians, is superb.

The graphics are still impressive, even compared to more recent releases. Very colourful and brilliantly designed. One weird feature of *X-Out* is the location of all this mayhem. Not deep space as you might expect, but deep water. (It does look like space though...)

The sound is a bit poor, but this is more than made up for by the superlative gameplay. It's the perfect shoot-em-up and easily one of the best on the Amstrad.



● Not much room for error here, as the bad guys are out in full force. Maybe you should have bought a better selection at the weapons shop?



tally scrolling landscape. As you walk, you encounter various beasties. Some fly, some walk, all can be kicked or punched. Occasionally, a bull will charge on to the screen. Hitting the bull reveals a power-up globe. Collect enough of these and you are transformed into a creature of vast power.

The graphics are muddled in the extreme – they're also big, slow and jerky. The sound is barely reasonable and the gameplay is extremely dull. It's a shame, because the idea was decent enough, it just suffers from terrible implementation. Not much fun and a visual nightmare.

SECOND OPINION

"Four excellent games – so why did Ocean stick in that dire old plodder Altered Beast? Don't let that put you off, though – Power Up is we worth buying for the other four alone."

Rod Lawton

CHASE HQ	92%
TURRICAN	90%
RAINBOW ISLANDS	90%
X-OUT	85%
ALTERED BEAST	31%

VERDICT 89%

What a stonker! Every game (with the exception of *Altered Beast*) the best of its kind. Outstanding value and a barghunters delight.

QUATTRO CART

Any excuse for a compilation, the Codies, this time it's cartoons (and with no known cartoon characters in sight). There are the usual four games and with fairly distinctive styles. Are they any good? Well, let's see...

• Wizard Willy

It's a hard life being a wizard. Everyone's out to get you. From ogres to fairies, they all want you dead. None of this Paul Daniels business, with fluffy rabbits and dodgy card tricks. Oh no, you have to deal with lightning bolts and Guardian Skulls...

So put on your special magic trousers and prepare yourself for a mysterious journey into the darkest realms of the



• What superb graphics! The game itself is really excellent too.

enchanted kingdom... Wiz Willy seems to have no particular mission in life, other than to kill monsters and leap platforms in this horizontally scrolling romp-o-rama.

The game starts off in a platform and beastie infested landscape. Wizard Willy can leap tall buildings in a single bound (well, tree stumps anyway) and fire bolts of lightning from his limited supply. (These lightning bolts can be replenished with pick-ups you discover along the way.)

There's lots more to pick up as you leap through the levels, including extra energy, free lives and bonus points. Perhaps the most useful pick-up of them all is the Vanish Spell. This is quite simply a smart bomb which kills all the monsters in the immediate vicinity – very useful when the screen is getting a little crowded.

The best feature of *Wizard Willy* is the stupendous attention to detail. The graphics are superb – fairly unusual for a budget game. They absolutely reek of colour and professional design. The characters in the game all have a personality of their own and this adds tremendously to the game's appeal. The sound is fine, with a dreamy tune playing throughout.

Wizard Willy plays brilliantly and has enough in it to keep you occupied for ages. A little gem.

• Little Puff

Little Puff is a dragon. Not the massive fire-breathing, village-destroying, virgin-eating son of Satan that you would expect, though. No, Little Puff is a cute and mostly harmless dragon. He's small, green and more than a little cuddly.

The poor little mite is lost and he wants to find his way home to Dragonland. To do this, he will have to collect four passes. These allow dragons entry to the security-tight land of fire-breathers. (You might expect that they'd let a dragon in on the strength of his appearance, but apparently not.)



• Little Puff's lost and he can't get home! Doesn't it make you want to blub?

The passes are scattered amongst a maze of screens and Puff has to negotiate platforms and puzzles to reach them. On the way he can collect a number of things. The first and most important of these is a potion which will allow Puff to breathe fire. This fire can be used as a weapon or as a device to solve certain puzzles. The puzzles are tricky in the arcade sense, but quite easy to figure out logically.

The game itself plays a little like the *Dizzy* series, with similar logic puzzles throughout. For example, when you find an uninflated lifebelt, you then have to look for a pump to inflate the darned thing.

The graphics are fine. Not spectacular, but

MULTIMIXX 3 Kixx ■ £4.99

This cassette is a mini compilation of three Capcom arcade conversions. The conversions are all of world famous coin-ops and the theme of violence runs throughout... but are they really so tough?

• Street Fighter

This coin-op took the arcades by storm when it was released. It relied heavily on massive sprites and the novel powerpads featured on the full size machine. These pads were big rubber cups containing a spring and some simple sensory equipment. This detected how hard you hit the pads and so frantic bashing was the order of the day – more involving than most beat-em-ups.

The action takes place in several different countries as you jet around the world picking fights with strangers. The object of the game is to defeat every opponent and become the world champion Streetfighter.

The game is a standard one-on-one beat-em-up, with the usual jump-kicks, somersaults and punches. Your opponents vary in size and strength and include a massive punk and a tiny kung-fu master. The final showdown takes place in Thailand against the mighty kickboxer Sagat.

Reaching Sagat is actually very easy, as most of the opponents are defenceless against one move, namely the sweep kick. Crouching and pressing Fire will take you through to the end of



• Would you take this guy on? Well you could, but he'd most probably bore you to death...

the game. This is a dreadful piece of game design and is not helped by the tedious and repetitive nature of the proceedings.

The graphics are OK, the sound almost non-existent and the pace leisurely to say the least. Fans of the arcade machine will be sorely disappointed by this and US Gold has a cheek releasing it again!

• 1943

Now this is more like it. A straightforward shoot-em-up with lots to kill and plenty to do. The game is a sequel to the ancient vertical scroller *1942*. It takes place at around the time of the battle of Midway. The second world war's most famous air/sea battle.

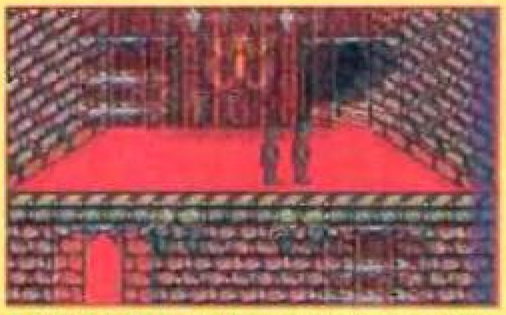
You fly a pretty ancient aircraft, fortunately kitted out with some hugely unlikely weapons. That's a point – if this is a WW2 bomber, why does it have smart bombs and lasers? Not to mention plasma blasters and nova cannons? Still, they're very handy things

TOON

Codemasters ■ £3.99

more than adequate for the job in hand. They convey the action and characters very well and suit the game nice. A dream to play and suits players of all ages.

● Frankenstein Junior



● Oh dear, your dad's gone to pieces. Now, where do you look for the bits...?

Frankenstein Junior is a very odd little game. It features a style of play you probably havn't seen since the days of *Atic Atac* and *Sabre Wulf*. The game is a kind of wander around, explore, collect, avoid monsters, collect keys type of thing. There are no platforms, no shooting and no scrolling.

If this doesn't spook you completely, then the plot will. You are the son of Frankenstein's monster and your dad has gone to pieces... literally. You have to find his various body parts and put them together so that your Pop can once more terrorise the local village inhabitants.

The game is viewed from a very unusual perspective, it's sort of isometric, but not quite right. As you rush madly around the screen, you will be chased by a number of different kinds of beastie. When these touch you, your heart rate increases until you drop dead.

There are doors in every room, each of which requires a key of a certain colour. Finding the keys you need is a tricky business, as they are often hidden in the garish scenery. The pace is frantic and you spend most of your time being tailed by ghosts and monsters.

The graphics are nothing special and the sound is fairly uneventful too. The gameplay is ridiculously simple and often boring. A mediocre little addition to this otherwise fine compilation.

● Olli & Lisa 3

Olli and Lisa are in a bit of a fix. They want to build a car, but all of the parts have gone missing. The parts are scattered round a gloomy old castle and are, to begin with, invisible. You control Olli as he bounces his royal cuteness around the various platforms and ledges of the castle.

To find the parts, you first have to be able to see them. To do this you will need a magnifying glass. This shows up the car parts whenever you happen to be in a screen which contains one. That part of the quest is easy enough, but finding the necessary tools and the location of the car chassis is another matter entirely. Olli can jump around the platforms with the greatest of ease and most platforms can be reached with the aid of a ladder or steps.



● Would you let these two build your car? Well you can help them build their own...

The graphics portraying all this action are beautifully ornate and well animated to say the least. It is unfortunately a bit of a Spectrum port, but then you can't have everything, can you? *Olli & Lisa* plays brilliantly and is an absolutely huge game. The only real problem is with the control method. It can be a bit fiddly to make Olli do what you want, but practice makes perfect and you'll soon get used to it. Easily the best game on the compilation.

Superb value and a highly entertaining collection of games.

88% VERDICT

to have, especially when the sky is throbbing with the sound of enemy aircraft.

The screen scrolls vertically and you have to shoot everything. That's the plot. The point of all this mindless violence isn't immediately apparent, but then who cares?

Weapons pods can be picked up at various intervals, and the pods themselves contain more than meets the eye. Shooting one cycles it through a range of different weapons and you decide which one you want. The pods also turn into energy boosters for those moments when it looks like you're about to snuff it.



● Excellent graphics, excellent playability, excellent plot (is there one?).

This brings an element of strategy to an otherwise mindless blaster. The graphics are lush and gorgeous, with lots of detailed colourful sprites and no slowing down! *1943* is absolutely superb.

● Bionic Commando

Oh dear, one of your arms fell off at Commando training school.. Fortunately, the bionic technicians fitted you up with a spanky new one.

It's long, with a big grappling hook on the end. This means you can fire it at things and swing tremendous distances through the air. And you can shoot and kill enemy geezers with a single blow.

The game's platforms are infested with all manner of nasty goons and killing them quickly is your main priority. You wil also come across birds and killer bees. These are more of an irritant than anything else, knocking you off platforms, often to your doom. The enemy soldiers are persistent and will chase you around, trying to kill you off.

The action starts off in a gloomy, darkened forest, filled with danger. From here, you have to make your way to a big, imposing castle and that's where it starts getting tricky. The final conflict takes place in a giant missile silo. Your objective: to destroy the superweapon and save the world and all this before breakfast!



Graphics are fine (a touch of Spectrumitis methinks), well designed, but with dodgy scrolling. The sound is limited to the odd bloop and bleep, but isn't all that terrible. All in all, a decent little platform shooter.

A decent compilation, marred by the inclusion of the awful *Street Fighter*.

86% VERDICT

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QUATTRO POWER *Codemasters • £3.99*

Racing is the name of the game in this Codemasters back-catalogue extravaganza. As usual, the value is incredible. Can you say the same about the games...?

• Twin Turbo V8



• Now this is a real car. It looks suspiciously like a Ferrari F40 and it certainly goes like one.

Twin Turbo V8 contains quite a few surprises. Firstly, it's from Codemasters and it isn't a platform game, nor is it a vertically-scrolling race game, nor does it have the word "simulator" bolted onto the title! The latter point especially is the most interesting, especially when you consider that this is the closest the Codies have ever got to a true simulation of a sport...

When the game is loading, you are treated to a spectacular loading screen, the game runs and brilliant music plays as an intro. The game itself is a 3D first-person-viewpoint racing game, with you at the controls of an immensely powerful driving machine.

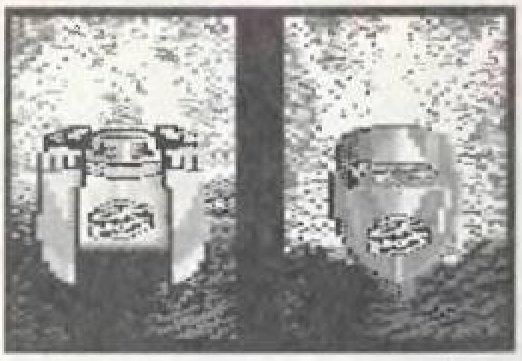
Accelerate away from the start line and you soon discover *TTV8's* best feature. The road moves faster and smoother than anything else you've ever seen on the Amstrad. It really is the slickest, swiftest piece of games programming you're likely to see for a long while.

The backgrounds lack detail, but the road surface gives a very a nice sense of realism. It's a bit of a shame then that there isn't that much to do. The race is very boring after a while and only the incredible speed makes things even remotely difficult. Still, it's fun for a while and it looks blimmin' spanky.

• Pro Powerboat

Pro Powerboat is a vertically-scrolling race game – you control a souped-up speedboat, racing against time, as well as against some very nasty opposition. These guys will try to ram you as they overtake and can often smash your boat against rocks in the process.

Fortunately for you it's not all racing. Your boat is equipped with a rather large contingent of floating mines. A press of the Fire button drops the mines in the path of any approaching boat. Contact with the mines leads to an explosive finish. Be careful not to hit any yourself.



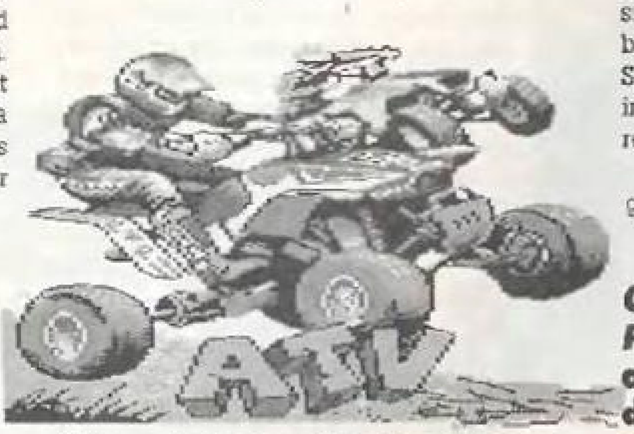
• Choose your weapon. They both handle the same, so it's really a choice of your favourite colour dude.

There are other obstacles to avoid in the meantime, including the entire Oxford/Cambridge boat race team, who apparently took a wrong turning at Tower Bridge and have found themselves in deep trouble. It's often a good idea to bomb the spineless wimps or bash them off the river.

The graphics are completely spectacularly OK. They look good, they scroll well and are very colourful. Good tunes, nice sound effects and brilliant presentation make this game a joy to play. The action is intense, the pace frantic and the game challenging. Easily the best of the bunch on this compilation.

• ATV

Well, there had to be one rotten egg in the pack. That's not to say that *ATV* is bad, it's just that it doesn't really come up to the standard of the other games in the pack.



• These all-purpose, all-terrain vehicles can really take some punishment. The hard bit is trying to wreck one.

We actually reviewed this one last issue when it was a part of the *Quattro Racers* collection. So here it is, a month later and, spookily enough, it hasn't changed a bit.

It is still a horizontally-scrolling racing game, much in the mould of *Kikstart* or even *Moto X*.

The poor graphics and dodgy sound don't help, but it aint' that bad at the end of the day.

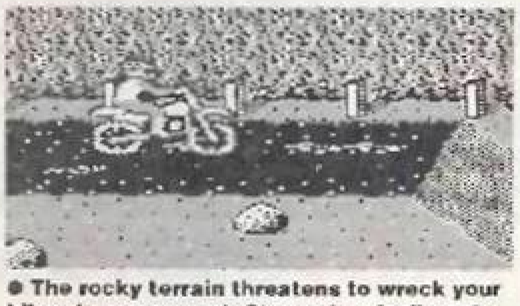
• Moto X

Moto X is horizontally-scrolling race against time looking uncannily similar to that ancient title *Kikstart*. As you ride along the rugged and eminently dangerous terrain, you will come across various obstacles. These include barrels, logs and some very steep drops.

The game is actually in two sections. The first is a time trial, the second is a kind of bonus stage where you have to perform various stunts for points.

The main element of gameplay is the control method. It will take you quite a few tries to get used to it, and even more to get past the first obstacle.

The bike goes at a set speed in the first section. You can't brake or accelerate and your only worry is jumping and hopping over the obstacles.



• The rocky terrain threatens to wreck your bike at any moment. Stay calm, don't panic and keep going.

The graphics are actually very nice. They scroll smoothly and are, for the most part (well, the bike anyway), well animated and detailed. Sound is a bit lacking, but there's an excellent intro tune, just in case you lost your entire record collection.

It plays well, looks good and by golly, it does you good!



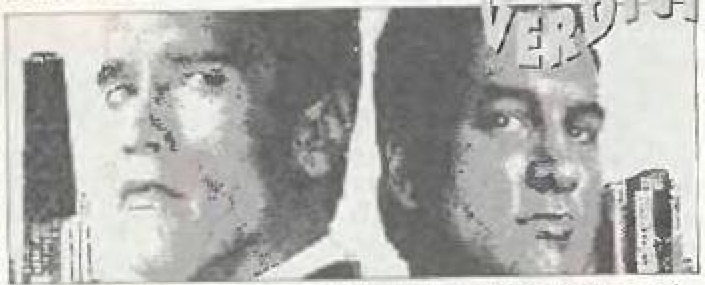
Quattro Power offers a variety of different game styles – and you can't argue with the value for money.

RED HEAT *Hit Squad ■ £2.99*

Arnold Schwarzenegger, everybody's favourite psychopath, is back (he said he would be). This game is based on the Carolco movie of the same name and sees our hero playing a Russian cop, Ivan Danko.

Danko is on the trail of a Russian drug dealer who has fled to Chicago. Danko must team up with an American cop to find this well dodgy geezer. As you can imagine, they don't exactly hit it off, but true to buddy movie fashion, they end up being best pals and saving the world etc.

40% VERDICT



● Arnold Schwarzenegger with his tremendous weapon and his somewhat weedy pal. Mind you, everyone looks weedy next to Arnie.

The game on the other hand, features only Arnie and takes the form of a mindless beat-em-up interspersed with bits of shoot-em-up. When the game starts, Arnie is viewed naked, fortunately from the waist up. Why is he naked? Because he is in a sauna, that's why.

Naked men!

Lots of other naked men come in at this point and proceed to attack poor old Arnie. In the spirit of diplomatic relations, Arnie head-butts them and punches their lights out. There are only two moves available – the Glasgow kiss and the old one-two.

This limits the beat-em-up aspect somewhat. Fortunately, there are other sections to come. The first is a joystick-waggling exercise, where Arnie has to crush what looks like a block of ice. Doing this successfuly gives you a massive energy boost for the next section. The next bit is a kind of *Op Wolf* type thing and very dull it is too.

The graphics are fairly decent, but very repetitive, the sound no more than average and the gameplay stinks. Not the best game ever.

A duff conversion of a decent film. Fair graphics, but useless gameplay.



● *Vindicators* is converted from the ace Atari coin-op and is a near perfect version of its big brother.

87% VERDICT

Vindicators is a conversion of the hit Atari coin-op. The game is a shoot-em-up of epic proportions set on a weird metallic planet in the year 2525. You have to save the Universe from the evil plans of the Tangent Empire.

Exploding fuel tanks!

Each level is a horizontally-scrolling maze packed with dangerous enemy tanks and flying saucers. Obviously these have to be destroyed to progress, but your main battle is with your volatile fuel tank. When you run out of fuel, the vapour in the empty tank will explode, so you have to pick up spare cannisters along the way.

At the end of every level there are exits. To open these and escape, you have to pick up a key. When you do get out, you'll find yourself in a bonus screen, where fuel and credit stars are there for the taking. The credit stars are used to enhance the weaponry and speed of your tank.

The pace is frenetic and the action involving. The weapon shop adds a hint of strategy to the proceedings and the game is greatly helped by the superb graphics. *Vindicators* is a little stunner and a very accurate conversion of the original arcade machine.

VINDICATORS *Hit Squad ■ £2.99*

Visually stunning conversion of a very classy coin-op. An ace licence.

PROFESSIONAL FOOTBALLER *Cult ■ £3.99*



● *Professional Footballer* is, in a word, dull. There is nothing less exciting than playing a game of footie by multiple choice.

Professional Footballer is a strategy-based football game. Much like *Football Manager* or *European Superleague*, it lets you control every aspect of the game except the actual play. This time, though, you are in control of a player, rather than a manager and have to decide upon various strategies of conduct and ability.

This is a very strange concept indeed. Controlling a player in every aspect of football except the game is definitely odd. No, you don't get to go to nightclubs and have a fight. You don't hang out with page three girls, nor do you get to sport an entirely stupid haircut.

31% VERDICT

Unusual training...

What you do get to do, is train for the next match. Training is bizarre. The computer gives you a multiple choice quiz on various aspects of football skill. For example, it may ask you what you would do in a penalty shoot-out or a corner kick. You have four possible replies and percentages of the chance of success each option has.

This method is frankly, a load of old pants. The game is mind-numbingly tedious and will only appeal to people who find train-spotting and anorak-wearing deeply exciting. Avoid!

Another management sim and very exciting it is too – if you're completely mad.

LED STORM *Kixx ■ £3.99*



• *LED Storm* is a vertically scrolling romp, featuring some fast moving tracks and some rather groovy stunt cars. Shame about the graphics.

64% VERDICT

Converted from the almost entirely unheard-of Capcom coin-op, *LED Storm* was released at a time when the software industry was going arcade crazy. They licensed anything that had the faintest connection with the things. *LED Storm* is a vertically-scrolling racing game, in much the same mould as *F1 Spirit* or *Spyhunter*. Initially you control a souped-up futuristic racing car, but you can change into a motorcycle at the press of a button. Turning into a bike enables you to jump higher and further than the car. The need for jumps soon becomes apparent as you come across gaping holes in the road surface.

High speed action

The action is fast enough and the concept is ridiculously simple. Drive along, collect anything that doesn't kill you and jump the things that do. There are lots of bonuses to collect, including free lives, extra energy and score multipliers.

Sound is fairly decent, with rockin' good tunes and sound effects. Unfortunately, there isn't much in the way of fun. There really isn't that much to do and the gameplay is severely limited. Still, the graphics are OK and it will keep you occupied for a day or two.

Fast but not so furious. A racing game that just gets very dull very quickly.

GHOSTBUSTERS 2 *Hit Squad ■ £2.99*

The Activision game of the original *Ghostbusters* movie was the biggest selling computer game ever. The sequel also spawned an Activision game and was received to rave reviews on almost every format. This Amstrad version has now been re-released on the budget scene – and what a bargain it is!

Three-part thrills

The game is in three distinct parts. The first sees you, a Ghostbuster, descending a massive airshaft to reach a sewer at the bottom. On the way down, you will be accosted by different types of supernatural goons. Most of these can be destroyed using the proton beam pack you're equipped with. If the ghosties are too much for you, your equipment also includes PKR bombs and a very handy shield.

When you reach the bottom of the shaft, the action changes and your next task is to guide the Statue of Liberty (seriously) along Broadway. Ghosts again hinder your progress and must be avoided.



• Travelling down the airshaft, and you might just get grabbed by the ghoulies on the way. Sounds painful.

90% VERDICT

All of this leads to a final showdown with Vigo the Carpathian (seriously twisted spook type dude). You have to rescue baby Oscar and save the world. Easy, huh?

The graphics are fab, the music superb and the presentation superlative. One of the best budget releases ever.

One of the best film licences of all time and a fine game in its own right.

VAMPIRE *Codemasters ■ £2.99*

Vampire is a fairly typical Codies release. It's a platform game with heavy elements of exploration and treasure hunting. You play Brok the Brave. Brok is an intrepid space hero and has taken it upon himself to come to earth and rid us of the curse of the dreaded Dracula.

Dracula lives in a castle of 95 rooms, so there's a lot to see and do. You're not alone in this castle, though; there are all kinds of baddies inhabiting the place, from your standard undead night-creature, to your patented Drill-o-matic killer tank.



• *Vampire* is one of the oddest platform games you're ever likely to play, with some really weird jumping techniques.

71% VERDICT

Collect the keys

To rid the world of Dracula you must use your rather odd jumping technique to traverse the maze of platforms and collect five keys. These open, uncannily enough, five locks. You then have to fix a generator, open six shutters and collect a hammer and stake. If you have any energy left after that lot, you must confront the evil of the Prince of Darkness himself.

The platform action is fun, although the jumping is a little quirky to say the least. The graphics are reasonable (a little too Spectrum-like for their own good) the sound is average and the task huge. Not bad, but very similar to other games in the genre and technically uninspiring.

Another platform based arcade adventure, with lots to see and do.

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Balrog

This month the Balrog explores the secrets of *Magnetic Moon* and discovers "what it would be like to be the size of Paul Daniels" in *Project X (Microman)*...

Magnetic Moon

£6 disk, 6128 & PCW only • FSF Adventures • 40 Harvey Gardens, Charlton, London SE7 8AJ.

The Balg has been eagerly awaiting *Magnetic Moon* for some time now. Originally written on the Electron, then converted to BBC and then to the Spectrum (each conversion an improvement on the previous version), *Magnetic Moon* has been anticipated on the Amstrad for quite a while, but finally it's here – and the wait's been worth it!

The story-line is hardly original, but then it has been some years since it was first conceived! The date is 9th June, 2153AD and you are Sub-Lieutenant Mike Erlin, assistant Astro-navigation officer on board the Survey Spaceship *Stellar Queen*. While on patrol you lose all contact with your scoutship, the *Pathfinder*. On arriving at the last know position of the scoutship, the *Queen* is nearly wrecked as a powerful tractor beam drags it down onto the surface of a nearby moon.

Fortunately, the ship sustains little damage, but the sensors show that a powerful magnetic field is preventing the *Stellar Queen* from escaping. The source of this magnetic field is found to be a huge underground installation generating vast amounts of energy.

"*Magnetic Moon* has been anticipated on the Amstrad for quite a while, but finally it's here – and the wait's been worth it!"

You, as ever the eager adventurer, volunteer to join the search party, but your Captain says you must stay on board to help supervise repairs! After nearly two years of routine survey work, the chance to get in on some *real* action is just too good to miss. So, you decide to disobey the captain by jumping ship and searching for the underground installation on your own...

This is where part one of *Magnetic Moon* starts – on the bridge of the *Stellar Queen* with Captain Rumsey, Commander Adams and Lieutenant Rodders busying themselves for departure. (If you recognise any of the previous names, you might also recognise Midshipman Grue, Chief Engineer Bond and Lieutenant Whyte!)

Part one is meant to be an introduction to the rest of the game. Nearly everything can be examined and there's lots of things to do – just don't expect the puzzles to be introductory because they're not!

The first major problem you are faced with is escaping from the *Stellar Queen*. Not easy when the main airlock is peopled by the search party (who certainly won't let you escape) and Midshipman Grue is on guard duty.

Directions on the ship are in naval form (port, forward etc.) and, although the Balg personally prefers normal compass directions, these terms add to the ship atmosphere.

On board the *Stellar Queen* you'll find a whole plethora of objects that can be taken. Unfortunately, you can't carry them all, so you must choose! The rest of part one is on the sur-

NEWS... NEWS... NEWS... NEWS... NEWS... NEWS...

The Adventurer's Herald

A new fanzine, *The Adventurer's Herald*, has just been published. Written using a 6128, *The Adventurer's Herald* plans to cover a wide range of fantasy – including role-playing – games, live role-playing, fantasy books, short stories, game reviews and the odd competition.

The mag costs 80p and is available from PO BOX 522, Tweedale, Telford, Shropshire.

The first issue wasn't very good value at only fifteen pages, but hopefully subsequent issues will improve as more material is received.

The editor, Rik Jones, also informs me that he is looking for contributors, mainly in the computer section. So, if you're interested in a spot of Adventure Journalism, why not give it a go?

The Chaos Maze

Len Townsend, author of the mediocre *Labyrinth Hall*, *Tulgey Woods* and *Twelve Lost Souls* (reviewed in *AA54*), has finally, after much hard work, finished the sequel to *Tulgey Woods*, *The Chaos Maze*.

GACed again, the *Chaos Maze* is an RPG with 660 locations (yep, you heard right – 660!), with a picture for each – should be interesting to see. For more details, write to Len at 61 Lowergate Road, Huncoat, Accrington, Lancashire BB5 6LN.

• The three Len Townsend games mentioned above (*Labyrinth Hall*, *Tulgey Woods* and *Twelve Lost Souls*) can now be obtained from Adventure PD – just request PD DISC: AMS 10 and send a disk and one pound and you'll get those three games plus two others.

Buy two, get one free!

Recreation Re-creation, the company that seems to appear every month in the news pages, has launched a special offer for Balrog readers. Buy any two Recreation Re-created games and get one free! For more details, and a price list, write to 39 Gargle Hill, Thorpe St Andrew, Norwich, Norfolk NR7 OXX or phone 0603 31678.

Talking of Recreation Re-creation, the company has just re-released three adventures: *The Last Believer* by Paul Lucas, *Nythyhel* by Tony Collins and *Die you vicious Fish* by Paul Gill.

Last Believer costs £4.50, is 6128-only and is a swords & sorcery style romp. *Nythyhel* is in two parts with "superb graphics" and "atmospheric descriptions" and costs £2.50 tape, £4.50 disk. Last but not least, *Die you vicious Fish*, by the same author as *Al-Strad* (reviewed last month), is available at £2.50 tape, £4.50 disk.

Butch Cowardice in the Undersea Adventure

Rob Buckley, author of the technically amazing *Eve of Shadows* (reviewed last month), informs me that his latest game, *Butch Cowardice*, will be the first ever WIMP adventure on the Amstrad: it has "good graphics, 356K of code, reams of text and it reads like a book".

The system apparently outshines *Eve* and Rob believes it will be better than any other home brew game – lets hope it's all Rob promises! For more details, write to him at 57 Lebrun Square, Kidbrooke, London SE3 9NS.

face of the moon itself, navigating derelict freighters in the search for the installation. The puzzles don't get any easier after leaving the *Stellar Queen*, either – good luck supporting those loose plates!

Part two is set inside the mystery installation and features a well thought out maze inhabited by the cute cleaning robot Jojo and loads of verbose text and clever puzzles. The installation is inhabited (I'm not saying who by, as I don't want to give too much away!), and there is always a constant fear of being discovered. The Balg was biting his claws all the way through – a testament to the game's atmospheric descriptions.

Part three has even more puzzles and great text but I won't say anything more. Suffice to say, if you enjoyed the game as much as the Balrog, you'll be itching to play *Starship Quest*!

Larry Horsfield, the author, is a perfectionist when writing adventures and *Magnetic Moon* shows this. Larry has spent much time and effort listening to playtesters' comments and has created a game with codles of text, loads of brilliant puzzles and an atmosphere of – dare I say it – early Infocom standards.

Parser-wise, there are numerous ways of manipulating objects and looking in places. You can look around, look over, look under, look in and you can also look in various directions! You can also search and examine various object and places. Larry uses adverbs in some puzzles as well, adding to the difficulty.

Magnetic Moon is a massive game. There's so much in it that it'll take you a long time to complete. In the Balrog's opinion, it's the best game of the year!

ATMOSPHERE	86%
INTERACTION	82%
CHALLENGE	88%
OVERALL	90%

Project X (Microman)

£2.25 cassette, £4.25 disk • Mark Eltringham • Recreation Re-creation software, 39 Gargle Hill, Thorpe St Andrew, Norwich, Norfolk NR7 0XX. Tel: (0603) 31678.

Recreation Re-creation certainly has been busy recently. Its latest price list has 28 games, all at budget prices. One of the games is a re-release, *Project X (Microman)*. Written by Tim Kemp and Jon Lemmon, *Project X* was originally written on the Spectrum many moons ago, converted to the Amstrad for Global's *Fourmost* adventure compilation in 1986 and reviewed in *AA8*.

You play the part of Professor Neil Richards, who becomes victim of a clichéd fate – while working in his laboratory on animal miniaturization, a freak accident occurs...

You receive a massive dose of Gamma radiation and discover that you are shrinking. Realising your danger you jump into your car and start driving towards your colleague's laboratory for help. Unfortunately, along the way, you black out and crash, to awaken a microman...

"You receive a massive dose of Gamma radiation and discover that you are shrinking..."

The first puzzle involves escaping from the car. From there you must find your colleague's laboratory, circumvent the COM-2 security system and try to get inside to contact him. Along the way you'll battle with a mole, find a needle in a haystack, develop a photograph and carry out various other tasks to help you in your quest to return to normal size.

Quilled, with average graphics, *Project X* is enjoyable. But, as with *Orb Quest* last month, it suffers at times from the lack of a decent parser. A good game, but perhaps a bit dated nowadays. *AA*

ATMOSPHERE	45%
INTERACTION	45%
CHALLENGE	60%
OVERALL	62%

Contacting the Balg

The Balg is desperate for new contributions to the Cluepot and Just for Laughs sections. To get in contact with him, write to: The Balrog, Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2BW.

Balro

Thanks to the following people for this month's pot of clues: Amir Mansour (London), Alistair Crook (Leeds), David Walker

Ballyhoo

To get the chocolate banana: Enter queue, exit queue, enter other queue. When the other queue gets shorter exit your queue but re-enter it again. Throw the banana (After you have licked the chocolate off) to rid yourself of the monkey.

Bards Tale

- The name of the mad God is Tarjan.
- Use the death ring on a dead party member. It works like the ANDE spell.
- Don't cast AREN as it doesn't work.
- SOSI is like the SESI spell.
- Beware of evil eyes as they can cast spells at your party.
- The stone blade is a good weapon – it turns everything it hits into stone.
- The spectre snare is like a SPBI spell.
- Use the Bard to sit on the throne.
- All the spells you have cast will dissipate every time you enter the Adventurers Guild.
- If the first three characters in your party are killed and shuffled to the back, you can re-organise your party and replace the dead characters to the front of the group. As only the first three characters can be attacked physically your surviving members can have a whole round of combat without being damaged.

Bowbows

- When you fall into the water ensure you have the sonk's stone.
- Use spell book on mud.

Lords & Ladies of Adventure

The Balg received a letter from a Lord of Adventure in Edinburgh, Ross Younger, who wrote: "Can I ask you to please, please, please re-enforce the message to enclose an SSAE when writing to a Lord or Lady. I have had a few requests recently which did not have an SSAE enclosed." Thanks Ross! The message is: no stamped self addressed envelope, no reply! Please treat the Lords & Ladies with the respect they deserve. They offer a free service and work hard for the name of adventuring.

Adventure Quest • Bards Tale • Dungeon Adventure • Snowball • Worm in Paradise.
James Taylor, 9 Crossland Crescent, Aldersley, Wolverhampton, West Midlands WV6 9LG.

Adult II • Can I Cheat Death? • Case of the Mixed-Up Shymer • DAA • Doomlords I & II • Dungeon • Experience • Firestone • Jason & the Argonauts • Magician's Apprentice • Message from Andromeda • Mystery Mansion • Quest for the Golden Egg-cup • Scary Tales • Seabase Delta • Spaced-Out • Stryptische I & II • Subsunk • Tizpan.
Dave Adams, 49 Myers Gardens, St. Helens, Merseyside WA9 3YX.

Seabase Delta (*Thanks for the solution William! – Balrog*)
William Huddleston, 1 Millwell Park, Innerleithen, Borders, Scotland EH44 6JF.

Knight Tyme • Mega Bucks
Andy Riddings, 10 Berkshire Street,

...og's Cluepot

(Upminster), Edmund Spicer (Littlehampton), Jay Honosutomo (Hemel Hempstead) and Adrian Forbes (Gourock)...

Frankenstein (esp for Jonathon Crompton)

At start: Get money, W, D, drop money, sit, wait, stand, get money, examine chimney, get picture, E, search garden, examine chest & hinges and unscrew hinges with knife.

Gnome Ranger

- To get the leprechaun: ask the nymph to dig at the base of the rainbow with her shovel. Don't enter the location while she is doing so. Wait for a move, then enter. Pick up the gold and give it to the leprechaun.
- To get the eagle: Wait for her to carry you to her nest, then hit chicks.

Guild of Thieves

At the Junction Chamber you will see bars blocking your way to the SW – just break bars. Beyond the bars at the waterfall untie the rope ladder before you go to the temple and push the statue. Use the snooker cue, the cotton and the pin as a fishing rod.

Rigel's Revenge (esp for D. Sunderland)

- From start: Get and wear the goggles. You see Elliot who starts to give you a message, then dies. Examine Elliot, get satchel, Ex2, N, E, D, N, examine unit, get medikit, U, firmly pull bars, remove suit, wear medikit, and press red button. You feel strong.
- Bend bars, remove medikit, put all through window (you are now thin enough to get through it), out, get all.

Seabase Delta (esp for a reader from Newquay, Patrick Dyson & Ryan McKenzie)

- You get the ink from the speared octopus.
- The pen is in the bureau in the living quarters.
- Spot disc with telescope in shaft below panel, tie the washing line to the magnet (third level – from the speaker in music room, type unscrew magnet) and then drop the line, then pull it.
- Play the Heavy Metal to open the doors.

Secrets of Ur

Sue Ilsley has solved Kay Wheelers problem – she should give the parachute to the native and he will then leave her alone. Sue agrees that *Ur* is a tough game – she still hasn't managed to complete it herself!

Arkham Manor

Patrick Dyson has come to the aid of Simon Netherwood and Jon Bingham:

1. To get into Manor go through French windows.
2. The rusty key is used to get in through the French windows. Chalk is used to make the shadow dial. The cross is used with the statue and the gun is used in part one not part two.
3. Take photo of smith and send to newspaper with his name. Next day go to telegraph office for useful telegram. Wait at 11 Boxer Road on Tuesday 24th at Night until somebody arrives, have gun with you and you will see what you have got to do with it.

Shadows of Mordor (esp for Jonathon Constable)

- To convert Smeagol to your side you must first get Sam to hit Smeagol with his sword (Frodo cannot do this as his sword would kill Smeagol), tie rope to Smeagol and then get Frodo to say to Smeagol "no", then "promise" and then untie rope.
- To get logs out of the Marsh maze you must go the first log, drag it, S, NW, SW, drop log, NE, S, SE, drag log, S, NW, SW, drop log, eat bread – Frodo - Eat bread - Sam - NE, S, SE, drag log, S, NW, SW, drop log - Frodo... (now all the logs are in the correct location for making a raft – 'TIE LOGS')

HELP!

Bloodwych

- Dave Murphy from Tamworth is having big problems – he cannot get out of the keep. The furthest he gets is level 2 where he comes across two doors with black locks and he can't open either of them. From memory, Dave, you must remove the two blue buttons/eyes to the east but I haven't got much further than this myself – can anyone else help? Dave also complains about problems with the load/save game option – he can't seem to get it to work. From the Balg's own experience of the disk version, loading and saving can be a problem. What I have found is that you save to the game disk and don't load from the opening menu option – this doesn't seem to work. What you must do is select one-player game, generate a party and then load save game once in the game by clicking on the disk icon. This method seems to work satisfactorily but every now and then there are glitches.
- Jonathon Crompton is also completely baffled in *Bloodwych*. He's got so stressed with the game he's been literally pulling his hairs out (I could have made a wig from the contents of the envelope!). His letter reveals a sorry tale of yellow gates, hidden yellow keys, green switches and intense confusion – can anyone help him!?

Asylum

Jonathon also would like any hints or tips for this game as he is again stuck.

Firestone

Pervez Choudhury is stumped – how do you cross the chasm and is it possible to talk to the Knight?

Chaddesden, Derby DE2 6GQ.

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BALROG'S POSTBAG

Dragontorc Blues

Have you ever played *Dragontorc*, by Hewson Consultants? It's quite an old adventure, about six years, but it is my favourite. Though I would have liked to have solved it without cheating, in six years I am no closer to beating it so I have come to you for help: I can't open the two doors in the Druid's Sanctuary, I don't know where to use the locate spell and I can get into the crypt but I am unable to open the door... Please help as Hewson Consultants ignored my requests for aid!

R.Crowe
Poole

You've been playing the same game for six years? Wow, that shows dedication! Unfortunately, my tips on Dragontorc are very sparse. Perhaps another adventurer could help?

Protocol Problems...

I am desperate for somebody's help. Yesterday, all my troubles seemed so far away, now it looked as if they're here to stay, until I remembered my *AA*...

I am stuck in part one of the *Fourth Protocol* – I need to know the answers to three of the questions posed by Sir Anthony Plumb: What is the proof, where did it happen and how was he recruited?

Andy Riddings
Chaddesden

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VIZ



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● The line up: From left to right, Biffa Bacon, Johnny Fartpants and Buster Gonad. Each displaying their prodigious talents...



● Haway man! Did you call my pint a puff? Biffa swigs back as many brown ales as he can... but will he blow his groceries?

Profane, lewd, disgusting, appalling, repellent, vile, subversive, anarchic, incomprehensible and utterly, completely hatstand. That's *Viz*.

For those of you who have been living in a monastery for the last ten years and don't know what *Viz* is, let us explain.

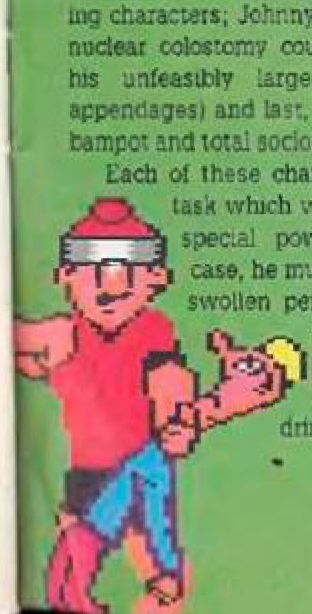
Viz is not a popular brand of soap powder. *Viz* is not a '40s superhero. *Viz* is the name of a 'comic' filled to the brim with toilet humour and merciless pillory of famous Dandy and Beano type characters.

Viz features characters including the likes of Johnny Fartpants, Roger Irrelevant and Norbert Colon. All of these characters use real or imagined powers to combat the forces of evil. Evil is represented by policemen, parents et al.

Viz the game incorporates most of the famous characters from the comic, although you can only choose to control one of three of the guys. What you really ought to know about *Viz*, though, is the language used. It's a tad rude. No, actually, it's very rude. So does it offer anything other than shock value?

You choose to play using one of the following characters; Johnny Fartpants (master of the nuclear colostomy cough), Buster Gonad (and his unfeasibly large and somewhat hairy appendages) and last, Biffa Bacon (professional bampot and total sociopath).

Each of these characters has to perform a task which will earn him a number of special power tokens. In Buster's case, he must crack walnuts with his swollen peripherals; Johnny has to fill balloons with Fartogen Pumpoxide ($FrPO_2$); Biffa has to drink as much Newcastle Brown Ale as he can. The faster you waggle your stick (f'nar, f'nar) the better you do.



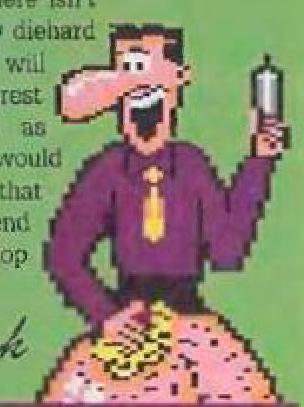
Once this stage is over you go on to the main section of the game. This is a very simple obstacle race, compèred by Roger Mellie (the man on the telly). It plays a little like Metrocross – no joystick waggling, just running from left to right through a hazard-filled park. Avoid the various obstacles and nefarious characters and reach the finish line.

Hitting Fire activates your special power. For example, Johnny will shout "Blue ruin", pump, and streak off into the sky. The much needed burst of speed will take you ahead of your rivals. If you complete the race in first place you have another chance to bump up your power tokens in a different waggling event.

The graphics throughout are funny, colourful and true to the spirit of the comic. The tunes are suitably daft and the presentation as tacky and rude as the comic.

The gameplay is sort of mediocre, but it does say so in the packaging, so you can't really complain about that. There isn't much to do and only diehard fans of the comic will see any lasting interest in this game. Or, as Roger Irrelevant would say, "Put a shine on that you flat-footed fiend and tell barky to stop humming!"

Frank





● A rather portly Roger Mellie (the man on the telly) starts the race. What he says next is not fit to be printed.

SECOND OPINION

"Depending on how easily offended you are, Viz is actually quite an enjoyable game. But how long it will last when the novelty and the humour wear off is another matter."

Rod Lawton

ALL IN THE WORST POSSIBLE TASTE?

Viz is the country's fourth most popular magazine, selling well over a million copies with each issue. It's probably also the country's most controversial magazine. Half the population think it's utterly hilarious, the other half think it's disgusting, lavatorial and totally unfunny.

Who reads it, anyway? It's not really a kids' mag (at least, their parents had better not catch them) – the language sees to that – yet you'd probably have trouble finding one kid in a whole school that has never seen a copy. *Viz* is also read by advertising executives, stockbrokers – and journalists.

The secret of *Viz's* success is that there are no depths to which it will not sink. The humour couldn't be in worse taste, the language couldn't be more explicit and the puns and double-meanings couldn't be more relentlessly awful.

Viz: Love it or hate it, there is no way you can ignore it.

FIRST DAY TARGET SCORE

Finish the second race

VIZ VERDICT

GRAPHICS............ 78%
Nice, colourful, funny and well animated.

SONICS................ 70%
Manic and eminently suitable tunes play throughout.

GRAB FACTOR....... 72%
Immediately curious and often funny.

STAYING POWER... 63%
Plenty of novelty value, but not much variety.

RATING 69%

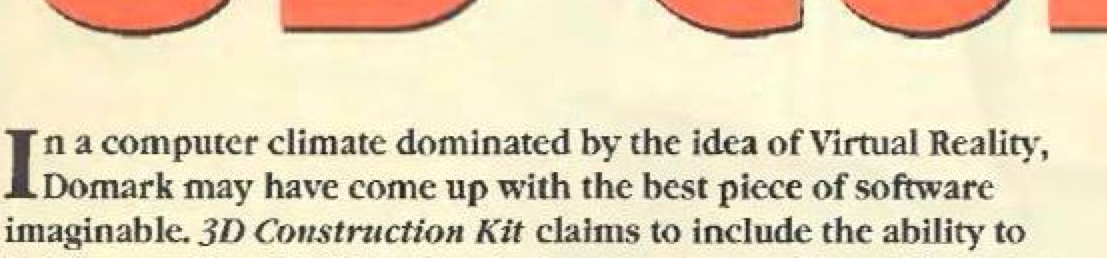
Not too bad at all, but parents and prudes be warned!

REVIEW

3D Constr

In a computer climate dominated by the idea of Virtual Reality, Domark may have come up with the best piece of software imaginable. *3D Construction Kit* claims to include the ability to build a world and fill it with whatever you want. Does it live up to its promise? FRANK O'CONNOR investigates...

£25.99 cassette and disk • Domark/Incentive



• The great thing about the included game is that you can fiddle around with it by using the game as one of your own saved files. You can now mess around with the objects and buildings in the game. In this case, we floated a pyramid above the house (it made sense at the time).

Incentive has been pumping out *Freescape* games for years now. *Freescape* Is a 3D environment system using filled vectors to create a fairly realistic "world". The games were immensely entertaining, combining the "real feel" with brilliant elements of strategic and puzzle gameplay.

Now Domark and Incentive have teamed up to bring you the system which created it all. *3D Construction Kit* is a user-friendly *Freescape* environment designer. With it, you can build any object you care to think of (as long as it has no round edges); you can make a whole city, a car, an aircraft. The only real limits are your patience and imagination.

The first thing you'll notice upon getting your copy of *3D Construction Kit* is the size of the box. Looking more like an expensive IBM business package than an Amstrad title, the box contains everything you need to get started.

Included is a comprehensive but not over-long manual, one disk or two cassettes (depending on your machine) and a VHS video cassette. The package looks extremely professional and not a little daunting.The best advice upon opening the pack is... DON'T PANIC!

People deal with software in different ways. Some read all the instructions carefully before starting, others bung it straight in the machine and start experimenting. We would recommend the latter, but sooner or later you will have to refer to the manual.

Once loaded, you are presented with a menu. This allows you to choose from the following list of options:

- 128K Editor (main program for 128k machines)
- 64K Editor (two parts for 64k machines)
- The *Freescape* Compiler (arranges your construction into a fluid, working format)
- A disk formatter

Use the disk formatter first if you have a disk-based machine, as Kit files have to be saved onto a special format.

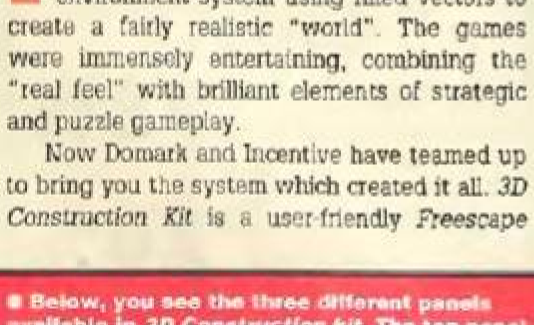
The main menu screen contains a panel of icons. The options these present include

VIRTUA

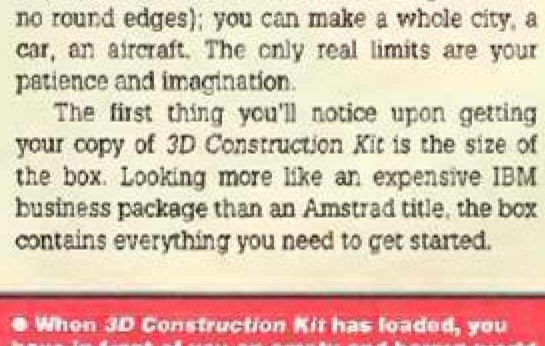
Virtual Reality is a rather trendy name for a concept which has been around for quite some time. Early flight sims created a kind of Virtual Reality, giving trainee pilots a safe and realistic environment to fly a "virtual" aircraft in. As computing power and graphic handling improved, so did the presentation of the Virtual concept.

Only in the late-'80s did the idea really take off and people started to realise new and more complex applications for the idea. Virtual Reality, as we have come to know it, is a computer-generated

• Below, you see the three different panels available in *3D Construction kit*. The top panel contains the bits you need all the time, namely your viewpoint and actual movement controls. Under that, is the palette editor, these are the colours available. At the bottom is the Edit panel. This is the panel you need to shape the objects you are designing.



• When *3D Construction Kit* has loaded, you have in front of you an empty and barren world – the world is your oyster. Shades of megalomania here, as you prepare to build a world of your very own. The area has set boundaries to begin with, but you can change these in the conditions editor. It's time to start building your universe...



• The first thing to be placed in the 3D world is a simple cube. This is chosen from a list of available shapes, both three and two-dimensional. The shapes include rectangles, triangles, lines, cubes and pyramids. It's up to you which object you define first, but always start with the largest – it makes finding your way around a little easier.



uction Kit

L REALITY

environment. It doesn't have to copy the real world, though. In fact, you can take the real world and turn it on its head.

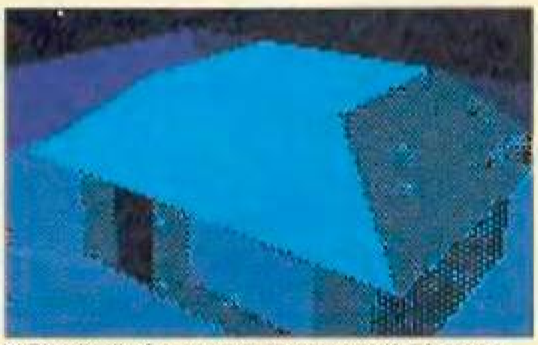
The concept took a great step forward when computer boffins came up with interactive helmets and gloves. The helmets contained LCD display goggles and an array of sensors. These sensors detect movement in the wearer and send instructions to the computer, so that looking up, for example, changes the viewpoint on screen accordingly. The gloves work in much the same way, allowing the user to hold, pick up or manipulate objects in a virtual world. The concept has been applied to full bodysuits, expanding the capabilities of the system.

Virtual Reality can be used for many things. It can be used as a tool for architects and city planners, for a start. Imagine designing a building and then being able to walk around in it before it's even built! Or planning road layouts and driving round them to check the traffic lights. The most sinister application of all, of course, is the military potential...

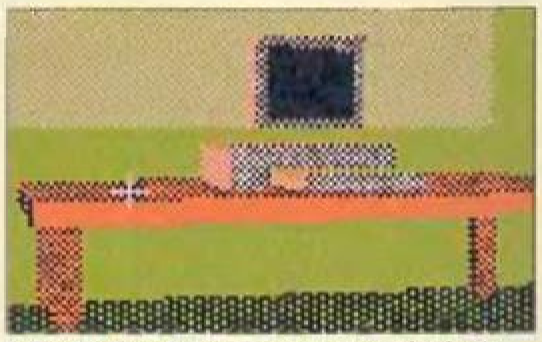
Pilots and tank drivers can be trained in extremely realistic scenarios. The pilots can turn their heads and watch through the "cockpit" as enemy fighters streak past and behind.

The idea of a Virtual office has been passed around, too, allowing people in different countries to assemble in one "office" and conduct business meetings. Networking and modems would be required to bring this system into being, but the idea relies on processing power more than anything else.

These things would seem to be a long way off, but the fact is, there are already Virtual arcade machines up and down the country, running on Amiga-based systems (admittedly souped-up Amigas, but Amigas nonetheless). People who talked about this as a leisure pursuit for the twenty-first century are now eating their words and looking forward to domestic virtual reality within the next ten years.



● The fly option comes is very useful indeed. It's kind of like a helicopter, whereby you can hover around at will.



● This may look like a detailed and intricate object, but it's really just a set of shrunken, stretched and compressed cubes.

Load/Save for the files you create. Those you use most are Create/Edit. Create, when selected, allows you to create a variety of two and three-dimensional objects. These include cubes, triangles, pyramids, lines and other polygons.

The objects in this menu all have set dimensions and appear in the same place when chosen. This is where the Edit function comes into play. Selecting Edit reveals a sub-menu, with a list of object-defining commands.

You can move the objects around in three dimensions, stretch, shrink, rotate and turn. This means you can move a pyramid, for example, place it atop a cube and stretch it skyward. There are a decent range of colours available and shading an object is extremely simple. If the object is three-dimensional, you can colour all its sides.

Colouring is simplicity itself. You select the shade option and a panel opens up beneath the standard control menu. On this panel are a selection of fairly simple shades. Clever programing allows eight colours in the normally four-colour mode 1. This selection has been further improved by stippling two different colours together to make an in-between shade.

3D Kit still isn't exactly exploding with colour, but there are enough shades to give realistic shadow and light sourcing. If you plan to make a large structure, say perhaps a village, then some careful thought about a light source will be required. A basic guideline is to decide where you want the "sun" – from then on, everything facing the sun is a bright colour. Object sides which do not face the sun are then shded in darker colours.

If you want to use the software as more than just an object designer, then your'e going to have to learn the complicated bit. *3D Construction Kit* uses a very simple programming language to handle the more complex aspects of the program.

It looks a little like BASIC, but is actually a lot simpler. For example, collision detection allows you to destroy objects with a laser. The laser is activated by pressing the Spacebar. This brings up a secondary cursor on the screen. This cursor can be guided quickly and accurately to the object you wish to shoot.

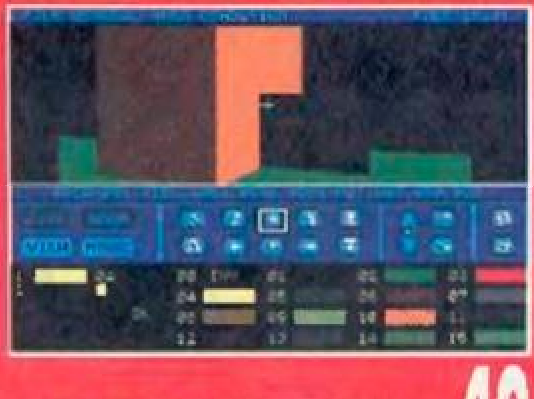
● The cube was far too small for the purpose we had in mind, so, using the edit function, we stretched it upwards and outwards. To ensure its proportions were correct, we used the Fly option to levitate above the cube and view it from every angle. You can zoom around any object in this manner – the facility also appears in *Freescape* games.



● The object is starting to take shape at last. Having made the cube large enough, we set about adding detail to give this structure some purpose. A rectangle is chosen from the shape menu and pushed around the building until it can be slotted into place. The rectangle too is stretched and then coloured using the palette menu.

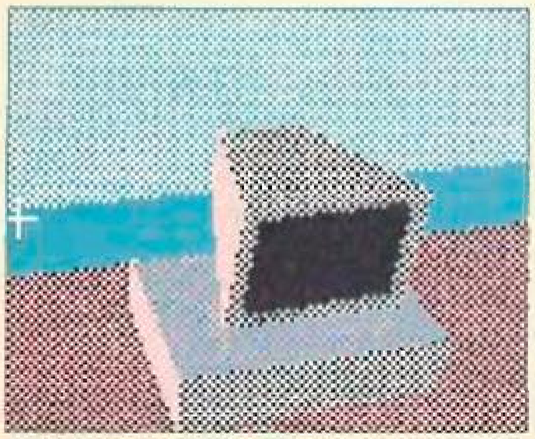


● Oops! Mistakes are easily rectified in *3D Construction Kit*. For example, the rectanle was placed on the wrong side of the building and had to be shunted round a little. From this position, it can be flipped through 90 degrees until it fits flush with the side of the structure. The colour can be changed at any time and even copied objects can be changed.



To give the object the ability to be destroyed, a typical line in *Kit's* object language would look something like this:

```
IF SHOT 4 2
THEN
DESTROY 4 2
ENDIF
```



● A free game is included with the package. It's a shortish adventure involving a space shuttle, a computer and a large dose of explorational ability.

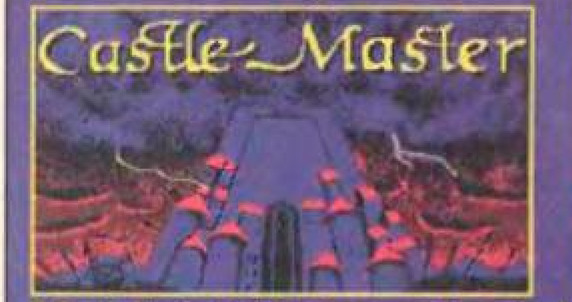
It doesn't take long and it's a fairly logical and intuitive system. The main difficulty you'll come across is spatial awareness. It can be difficult knowing exactly where you and the objects you are building are at any particular time. Fortunately, a plan view is available from the main menu. Mapping larger complexes of buildings and structures is definitely advisable; the program itself gives correct coordinates at all times, displayed in a bar below the main screen.

The control panel is a joy to use. The arrow pointing forward obviously moves you forward. The arrow pointing up is similarly logical. This is also true for the slightly more complicated edit screen. This time the arrows represent STRETCH, MOVE, SHRINK, POINT and TURN.

Viewing the structures is also simple. A little "eye" icon is displayed, with a facility to look up or down. Clicking on the main "eye" returns your viewpoint to the horizon.

If you don't feel confident about building something from scratch, there is another way: Load up the included game demo and try messing around with the objects in that. These are already endowed with the more complex attributes of the program and can be redesigned until they are almost unrecognisable.

The Legend of Freescape



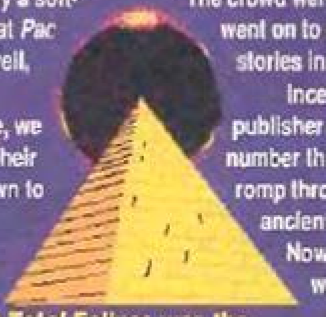


● *Castle Master* took the *Freescape* theme back in time to medieval days. The sequel, *Castle Master 2: The Crypt*, hasn't been available in the shops – until now. It can be bought as part of the *Virtual Worlds* compilation just published by Domark/Incentive.

A long time ago, in a galaxy far, far away a software house called Incentive decided that *Pac Man* and *Space Invaders* just weren't, well, real enough.

"We don't want to just *see* the maze, we want to *be* there!". And so they put on their special programming pants and sat down to revolutionise the games industry...

Driller was the first of the *Freescape* programs and arguably the best. It borrowed the 3D concept from lots of different sources. Flight sims had been using polygons for years, but they weren't particularly detailed and increased size meant reduced speed. Incentive invented new coding techniques to get the thing running. It was fast. It was big. It was clever.



● *Total Eclipse* was the second *Freescape* game, set this time in an Egyptian pyramid.

They released the game on just about every format known to man and it was greeted with incredible adulation.

"Do it again", cried the world. "We want some more of those spanky *Freescape* games."

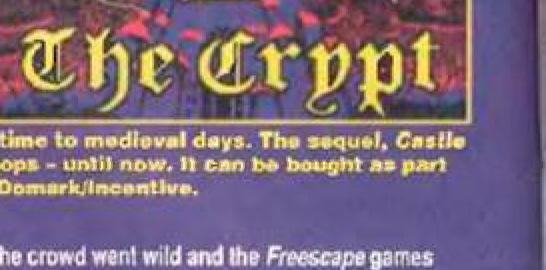
The second *Freescape* title was *Total Eclipse* and although it looked and played similar to the first game it was bigger, it was faster, it was better.

The crowd went wild and the *Freescape* games went on to become one of the biggest success stories in software history.

Incentive then joined up with games publisher Domark to release *Freescape* game number three – *Castle Master*, a medieval romp through the rooms and vaults of an ancient castle.

Now Domark/Incentive has come up with the *3D Construction Kit*. You can create your own 3D environments and maybe even program another *Driller*...

● **All three previously-released *Freescape* games plus a fourth, *Castle Master II: The Crypt* are being sold as part of the new *Virtual Worlds* compilation from Domark/Incentive. Look out for the review next issue!**



● *Driller*, the first of the *Freescape* games, is now considered a true classic

Disk users will have to use the special *Kit* formatter to save their designs, but tape users have an easy time of it. The multiload on tape is simple, quick and efficient.

The program reeks of quality. Expensive it may be, but *3D Construction Kit* is easily the most innovative piece of Amstrad software ever.

Enough of the theory. We set out to create our own skyscraper using *3D Construction Kit*. (See the accompanying walk-through. **AA**

GOOD NEWS

- Incredibly flexible design tool
- Wonderful piece of original programming

BAD NEWS

- Daunting instruction manual

Verdict 95%

● The object has to be checked thoroughly. One of the problems with *3D Construction Kit* is the origin point of recently created objects. They are often obscured by larger objects and have to be found before you can do anything with them. In this case, a square has gone astray and is currently on the other side of the cube.



● The building is now almost complete. The windows are simply yellow squares. Only one was designed – the rest were copied from the original and placed relatively easily in a nice regular pattern to form windows. What you have here is a palette problem. We finally found colours for the AA logo, however, that looked reasonable.



● And here you have it. In less than an hour, we built from scratch an exact replica of the imposing *Amstrad Action* skyscraper. You would be hard pushed to tell the difference between this and the real thing. It only takes time and patience to define the company Lamborghinis to go in the garage entrance now (it's a hard life at *AA*, you know).



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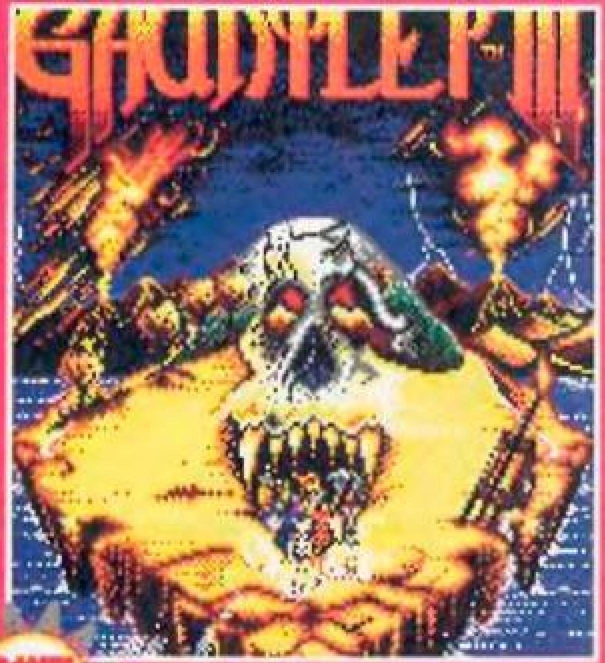
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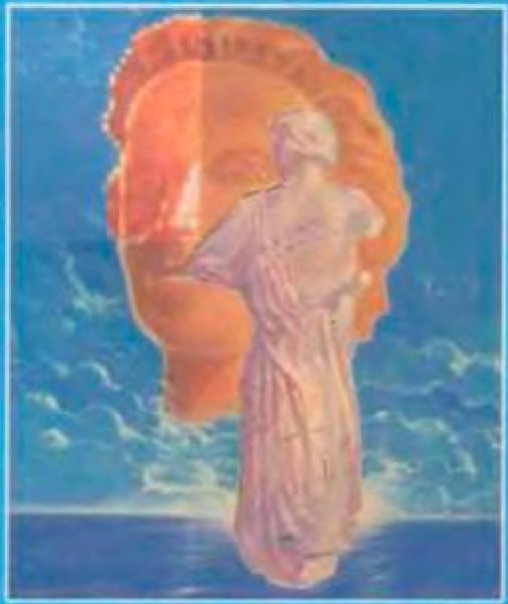
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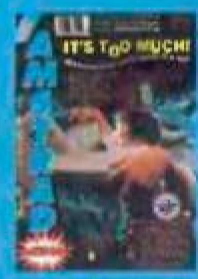
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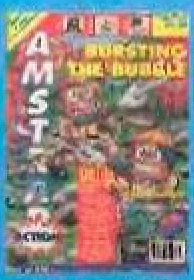
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Fun School 3 Over 7s

The Over 7s pack is the third in the *Fun School 3* series. Perilously close to reaching the frontiers of knowledge, FRANK O'CONNOR tries out Database's educational program for older kids...

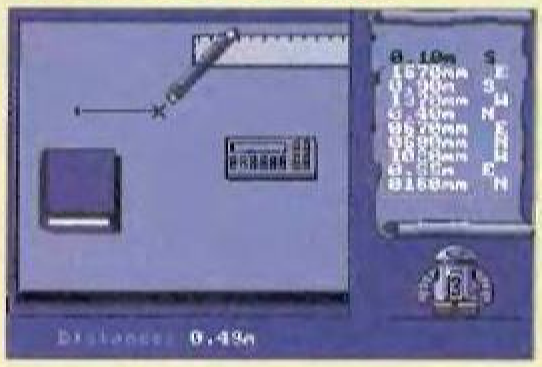
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Wordsearch



This game takes the format of the hidden word puzzle games so popular in those little newsstand puzzle mags. You simply look at a grid of letters and find the required word in amongst the melee. Once found, you highlight the first and last letters to select the word and see if you were right.

Treasure Search



You play a pirate looking for buried treasure. The computer feeds you a list of instructions and coordinates which you follow until you find the stash of loot. This is possibly the easiest of the sections... only it's also the dullest too, though it does have direct educational value.

Robot Draw



This game is a bit more complex. You guide a robot around the screen using a computer language very similar to LOGO. You use the robot to draw shapes, and you can configure his movements to include shapes such as circles and squares. This is probably the most involved of the games.

Database



This is a simple database allowing input, saving and printing of records. The novel twist is that it tests your memory by asking you the title of various records. Easy at first, but the more you enter the harder it gets. This section is directly relevant to kids planning a future in the information technology industry!

Planet Maths



A sum (representing a spacecraft!) floats towards a dangerous-looking laser wall at one end of the screen. To avoid collision you have to solve the sum. You can alter the difficulty depending on the child's age. The basics of addition, sübtraction, division and multiplication are covered in this section.

Sentences

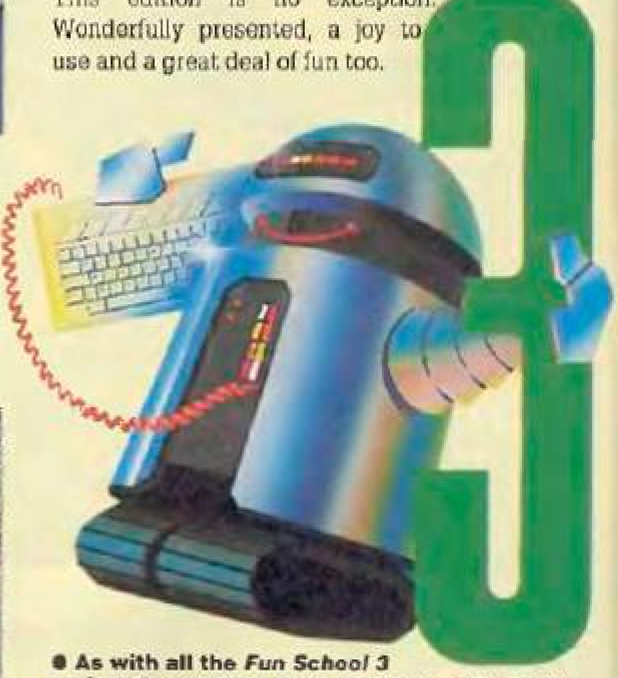


This section tests both grammar and spelling by asking you to correct a wide range of different (faulty) sentences. You have to check all of the punctuation and spelling, as well as watching out for missing capitals and inappropriate words. This section in particular is very impressive and quite involving.

Last month, we reviewed the 5-7s version of this excellent educational package, this month we take a look at the over 7s version. The age group that this covers is a little wider, especially bearing in mind the fact that much of the program deals with creative work. The academic aspects are governed by the user's ability.

The program, as in previous versions, is split into six sub-games. All of these focus on various aspects of education, firmly targetted at the abilities of over-7s. The games cover such diverse topics as spelling, grammar, arithmetic and even computing in general.

The bottom line is that the *Fun School* series includes some of the most demanding, attractive and entertaining educational software there is. This edition is no exception. Wonderfully presented, a joy to use and a great deal of fun too.



• As with all the *Fun School 3* series, the opening screen lets you select any of the six program modules.



GOOD NEWS

- Flexible skill levels
- Intuitive control method
- Superb presentation as ever

BAD NEWS

- Painful mult-load on tape
- One rather dull section

VERDICT 92%

Cheat Mode

AA's cheating section is crammed with goodies for anyone having trouble in a game:

- Pokes (the listings) let you hack into the game code to give yourself extra lives, fuel and more
- Multiface pokes (these follow the listings) are even easier to use for those people who own those little black boxes
- Keypress cheats are put in by programmers to help the playtesters and then left in – they're often just there to be found...
- Passwords and solutions are sent in by dedicated gamesplayers who want to share their hard-won knowledge

QUATTRO FIREPOWER

It's compilation time again, and the unstoppable Andy Price has whipped up yet another set of cheats, this time for the next in the range – the firesome foursome, Codemasters' *Quattro Firepower*. On the *Terra Cognita* cheat you need to wind the tape past the first file, TERRA-COGNITA, (CAT the tape)

Mig 29 Soviet Fighter

```
(MpAv) 1·'·Mig·29·Soviet·Fighter
(LeAs) 2·'·Quattro·Firepower
(FsAj) 3·'
(HiAr) 4·'·by·ANDY·PRICE
(FuAj) 5·'
(EuAr) 10·DATA·2a,38,bd,e5,ac,e1
(IeAv) 20·DATA·22,2b,be,ad,21,37
(HkAt) 30·DATA·bd,3e,c3,77,23,3e
(EsAu) 40·DATA·23,77,3e,be,23,77
(IsAt) 50·DATA·21,48,00,e3,11,00
(CqAu) 60·DATA·bb,00,c3,4a,3a,af
(OkAs) 70·DATA·32,c8,08,32,f1,0c
(MrAq) 80·DATA·cf,00,00,00,00,00
(HxAr) 90·FOR·x=&BE00·TO·&BE2C
(HtAt) 100·READ·a$:a=VAL("&"+a$)
(FaAv) 110·POKE·x,a:chk=chk+a:NEXT
(JrEi) 120·IF·chk<>&116D·THEN·150·
(AnAs) 130·MEMORY·&2FFF:LOAD""
(JpAo) 140·CALL·&BE00
(LnAr) 150·PRINT"Error·in·poke"
```

Address	Poke	Effect
08C8	00	Inf. lives
0CF1	00	Inf. fuel

Operation Gunship

```
(MjAq) 1·'·Operation·Gunship
(LuAs) 2·'·Quattro·Firepower
(FsAj) 3·'
(HiAr) 4·'·by·ANDY·PRICE
(FuAj) 5·'
(EwAr) 10·DATA·2a,38,bd,e5,ac,e1
(MvAv) 20·DATA·22,35,be,ad,21,37
(HkAt) 30·DATA·bd,3e,c3,77,23,3e
(EsAu) 40·DATA·23,77,3e,be,23,77
(IsAt) 50·DATA·21,40,00,e3,11,00
(CqAu) 60·DATA·bb,00,c3,4a,3a,af
(MoAs) 70·DATA·32,9b,8e,32,5f,8d
(MrAu) 80·DATA·32,53,8d,32,b1,85
(JsAv) 90·DATA·3e,41,3e,50,cf,00
(LpAq) 100·DATA·00,00,00,00,00,00
(HqAs) 110·FOR·x=&BE00·TO·&BE36
(PxAu) 120·READ·a$:a=VAL("&"+a$)
(BsAu) 130·POKE·x,a:chk=chk+a:NEXT
(IrAx) 140·IF·chk<>&1546·THEN·170·
(CrAr) 150·MEMORY·&2FFF:LOAD""
(LtAo) 160·CALL·&BE00
(MrAs) 170·PRINT"Error·in·poke"
```

Address	Poke	Effect
8E9B	00	Inf. bombs
8D5F	00	Inf. bullets
8D53	00)	Invuln.
85B1	99)	



Terra Cognita

```
(LkAp) 1·'·Terra·Cognita
(LuAs) 2·'·Quattro·Firepower
(JsAs) 3·'·method·2,·skip·first
(BnAu) 4·'·file·"terra-cognita"
(FuAj) 5·'
(HkAr) 6·'·by·ANDY·PRICE
(FuAi) 7·'
(KpAv) 10·OPENOUT"":MEMORY·999:
       INK·0,26
(KpAt) 20·BORDER·0:INK·1,0:MODE·2
(MvAt) 30·LOAD"!",&C000:LOAD"!",
       1000
(AiAw)
40·LOAD"!",20000:POKE·&19AE,
       0
(MrAn) 50·CALL·1004
```

Address	Poke	Effect
19AE	00	Inf. lives

3D Star Fighter

```
(NjAr) 1·'·3D·Star·Fighter
(LuAs) 2·'·Quattro·Firepower
(FsAj) 3·'
(HiAr) 4·'·by·ANDY·PRICE
(FuAj) 5·'
(OwAr) 10·FOR·x=&BE00·TO·&BE2B
(JvAv) 20·READ·cd$:cd=VAL("&"+cd$)
(EjAp) 30·POKE·x,cd:NEXT
(JqAs) 40·DATA·ED,5B,38,BD,E5
(IxAp) 50·DATA·AC,E1,FD,53,2B
(KoAs) 60·DATA·BE,AD,11,37,BD
(BwAu) 70·DATA·3E,C3,12,13,3E
(PyAq) 80·DATA·25,12,3E,BE,13
(HeAr) 90·DATA·12,21,40,00,E3
(NeAr) 100·DATA·11,00,BB,00,C3
(PtAr) 110·DATA·4A,3A,41,50,00
(EuAs) 120·DATA·AF,32,3A,7F,32
(CxAs) 130·DATA·15,7F,00,00,00
(EuAo) 140·POKE·&BE2C,&CF
(CrAr) 150·MEMORY·&2FFF:LOAD""
(LtAo) 160·CALL·&BE00
```

Address	Poke	Effect
7F3A	00)	Invuln.
7F15	00)	

NEW KIDS BLOCK

If it's worrying you that the pokes in *Cheat Mode* just look like a jumble of signs, squiggles and numbers to you, fear not, that's just what they are! They're programs written by specialists to take the control of loading function, alter, and then start the game. What you will need to do, should you want to use one, is:

1. Make sure the routine is written for your format – disk or tape – they will not generally work with both.
2. Type it in to the computer, making sure there are no errors.

- *Typing in routines is always prone to errors, so here's some help:*

The funny numbers within the "{ }" brackets on the left of the lines are NOT to be typed in but are a code produced by the TYPEWRITER program printed periodically in Amstrad Action. (It was on the covertape with AA67 and AA68). It checks each line as it is typed in and produces a code which can be compared with that printed. You don't have to use the TYPEWRITER program, but it's recommended.

All SPACES in the lines have been replaced by printed dots, the idea being that it makes them easier to see. See a DOT? Type a SPACE!

Quite often the routine itself will have a built-in check on the DATA numbers and will tell you if one of them is typed in wrongly. User-friendly or what?

3. Save the program to tape or disk (not the game tape or disk!) so that it can be used again.
4. Put in the game tape or disk and type |TAPE or |DISC.
5. Type RUN to run the routine (not RUN "" (CTRL+ENTER) as you normally would)

You should find that the game will load normally, or you will be given instructions on what needs to be done.

EDITION ONE

The tape compilation receives infinite lives all round from our man in Street, Graham Smith. This is an "all in one poke" for the four games, *Gemini Wing*, *Double Dragon*, *Vigilante* and *Silkworm*..




```
{IvAw} 1·'·Edition·one·By·Graham·Smith
{BrAw} 2·'·Infinite·lives··(tape)
{DkAu} 3·'·Save·to·tape,·not·disc
{FtAj} 4·'
{CxAx} 10··DATA·06,00,11,11,11,cd,77,bc
{OnAu} 20··DATA·45,eb,cd,83,bc,cd,7a,bc
{FnBj} 30··DATA·3e,01,cd,0e,bc,d1,7b,fe
{CjAx} 40··DATA·04,20,12,21,22,be,22,bc
{OuAu} 50··DATA·03,eb,e9,cd,cb,03,21,00
{HjAv} 60··DATA·c3,22,2a,08,c9,fe,ac,20
{CxAw} 70··DATA·05,3e,73,32,43,be,38,e6
{AjAx} 80··DATA·07,32,56,be,21,16,bd,36
{DvAw} 90··DATA·c3,23,36,49,23,36,be,eb
{MeBi} 100·DATA·e9,21,52,be,22,e8,a8,c3
{FxBi} 110·DATA·08,a6,cd,47,a8,16,00,21
{BwBl} 120·DATA·65,be,22,78,a3,c9,21,6c
{BkBi} 130·DATA·be,22,61,a9,c9,af,32,69
{AmAu} 140·DATA·4d,c3,fe,99,af,32,3b,44
{JuAw} 150·DATA·c3,15,58,21,7c,be,22,e9
{OlAx} 160·DATA·a8,c3,10,a6,cd,5D,a8,21
{JiAv} 170·DATA·86,be,22,43,a9,c9,21,8f
{LoAx} 180·DATA·be,22,03,0a,c3,c4,09,af
{ItAw} 190·DATA·32,eb,4c,c3,e4,0c
{ErAt} 200·FOR·j=48640·TO·48789:READ·a$
{KtBj} 210·x=VAL("&"+a$):y=y+x:POKE·j,x
{OtAt} 220·NEXT:IF·y()17285·GOTO·240
{MqAo} 230·CALL·48640
{CpAq} 240·PRINT"data·error
```

Address	Poke	Effect
Gemini Wing		
443B	00	Inf. lives
Double Dragon		
4CEB	00	Inf. lives
Vigilante		
5816	00	Inf. lives
Silkworm		
082A	00	Inf. lives
082B	00	

MULTIFACE MAELSTROM

This month's pokes are from Andrew Fairhurst of Crewe, Fred and Martin Preece of Cardiff, Colin Mulholland of Belfast, Tom Stevens of Tonbridge, and Tue Anderson of Helsinge...

NAME		ADDRESS	POKE	EFFECT
Magicland Dizzy	(t)	F793	C9	Super jump
		FE5B	00	Walk on water
		0093	00)	Fish and traps
		0135	C9)	Inf. snorkle
Arctic Fox	(t)	A300	00	Inf. shields
Dragonninja	(t)	13C0	00	Inf. time
		1D54	00	Inf. time
Cauldron 2	(t)	1C90	00	Inf. lives
Cabal	(d)	0B1A	00	Inf. lives
		1972	00	Can't die
Vigilante	(d)	0C2B	A7	Inf. lives
Booty	(t)	54F4	00	Inf. lives
Dynamite Dux	(d)	8884	A7	Inf. credits
Cholo	(t)	8315	A7	Invulnerable
Mystery on the Nile	(t)	0408	02	Inf. lives
West Bank	(t)	0A58	FF)	Inf. lives
		0CF4	A7)	
		92BD	A7)	
Boulderdash IV	(t)	05E9	FF	Extra lives
		0C3C	00	Inf. time
Devils Crown	(t)	9144	00	Inf. Oxygen
		A183	00	Inf. Bullets
Fly Spy	(t)	AB2C	18	Can't die from bombs
Gyroscope	(t)	5308	C9	Invulnerability
Metal army	(t)	A3A4	00	Inf. lives
		878E	00	Inf. ammo
Technician Ted	(t)	4B43	00	Inf. lives
2T8	(t)	A282	C9	No badstars
		A0C7	C9	Invulnerability
Moving Target	(t)	6B36	00	Inf. lives
Shadow of the Beast	(t)	2920	00	Inf. energy

The Multiface way

The (t)s and (d)s before the address indicate whether the poke was written for a tape or disk game (they might work on both, its worth a try). Just in case you don't already how to put in these BLACK BOX POKES, here are the steps to success.

a Load the game as normal.
b Press the RED button on the MULTIFACE.
c Press "T" for tool.
d Press "*" to make sure you select the code.
e Press "H" for HEXADECIMAL input.
f Press "SPACE" for input.
g Type in the ADDRESS (4 characters ie. 3A7C)
h Type in the POKE (2 characters ie. A7)
i Press "RETURN"
j If there is more than one poke goto (f)
k Press "ESC" back to the menu.
l Press "R" return to the game.

MR HELI

Mark Smith from Glusburn and Tom Stevens from Tonbridge have discovered the passwords for levels 2 and 3 of *Mr Heli*.

Level 2 – CACSFAAAAUAEDIADCKCY
Level 3 – DECIHAFAAUAISAADCDBR

SUPERCARS

RWJ Bain (very formal) form Yarm in Cleavland and Jamie Murray of Lesmahagow have supplied the passwords for classes 2 and 3 of Gremlin's *Supercars* they are ODIE and BIGC, type them in on the track selection screen.

COMBAT ZONE

Mark Richardson of Craigshill in Livingston has found a nice little keypress system of cheats built into *Combat Zone*, recently re released on

ROCK ST

Matthew Bayfield from Gravesend in Kent has completed the Codemasters Gold game *Rock Star Ate my Hamster*, and sent in some hints and tips to get you a bit further along the road to stardom in this absorbing game.

Selecting Rock Stars

- Always select four Rock Stars.
- You can afford to pay wages of up to #30,000. Pick one for around #15,000, one for around #10,000, one for around #1,000 and Sidney Sparkle for #50
- Each star will have a different temperament – Stars to be avoided include: Maradonna, Izzy, Asbeen, Rotton Johnny, Dorrissey, Alison Nightmare and Lumme.

Getting Started

- Keep the band name suggested by Clive.
- Buy dodgy gear, this will get confiscated by the police later if you become successful enough, but by then you will be able to afford brand new stuff.
- Follow this pattern to get going:

Gig... Universities... Charge #15 for 4 nights
Gig... Clubs.......... Charge #10 for 4 nights
Gifts Food (BILL 4x #50=#200)
Gig... Universities... Charge #10 for 5 nights
Gig... Clubs.......... Charge #10 for 4 nights
Gifts Food (BILL 4x #50=#200)

- If during this period any of the stars ask for anything they are not a good choice.
- Continue gigging in concert halls, and charging #10, for 4 nights until you fill them. Give the stars gifts after every 2 tours.
- Once you have filled the concert halls, move cautiously up to stadiums, charging #10 for 7 nights, continue giving gifts every 2 tours.

Record deals & sponsorships

- Refuse all sponsorship, e.g. Lievie Jeans, Soma Electronics.
- Accept the record deal worth #50,000 + 20% royalties. Ignore others.

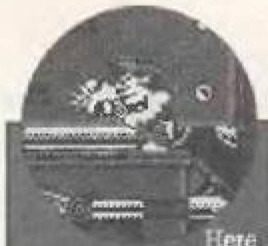
the Alternative's *4 Most Action* compilation. Press CLR to pause the game (it will say PAUSED on the screen) Then press the keys SHIFT, CAPS LOCK, and TAB, a sign will tell you the Cheat Mode is ready. Then keeping your fingers on SHIFT, CAPS LOCK, and TAB, Pressing S changes the scenery, pressing H initiates a Smart bomb system (Space), "I" ups the lives to 255, and "F" ups the fuel. A sign on the screen will tell you that the cheat mode has been activated.

BACK TO THE FUTURE 3

William Huddleston from Innerleithen in Scotland suggest that for infinite lives in *Back to the Future 3* type the following during play:

Level 1 : ROTTEN CHEAT
Level 2 : LOUSY CHEAT
Level 3 : LOW DOWN CHEAT

AA



NIGHT SHIFT

Here are the codes for all the levels in US Gold's game *Night Shift* from William Huddleston up in Innerleithen (I may never eat a fruit salad again)

2 cherry/banana/banana/lemon
3 banana/cherry/pineapple/blueberry
4 pineapple/lemon/pineapple/pineapple
5 pineapple/pineapple//lemon/cherry
6 cherry/blueberry/blueberry/pineapple
7 cherry/lemon/pineapple/banana
8 pineapple/banana/pineapple/cherry
9 pineapple/lemon/lemon/cherry
10 lemon/banana/blueberry/blueberry
11 banana/pineapple/cherry/blueberry
12 cherry/blueberry/banana/blueberry
13 blueberry/cherry/banana/pineapple
14 pineapple/cherry/blueberry/banana
15 blueberry/blueberry/pineapple/pineapple
16 banana/banana/pineapple/banana
17 banana/blueberry/cherry/blueberry
18 blueberry/lemon/lemon/blueberry
19 lemon/pineapple/cherry/blueberry
20 cherry/pineapple/pineapple/cherry
21 lemon/cherry/pineapple/pineapple
22 blueberry/lemon/cherry/banana
23 blueberry/cherry/cherry/lemon
24 blueberry/pineapple/lemon//lemon
25 banana/pineapple/pineapple/lemon
26 blueberry/cherry/cherry/banana
27 banana/cherry/lemon//banana
28 blueberry/banana/banana/pineapple
29 cherry/blueberry/cherry/pineapple
30 cherry/cherry/banana/blueberry

TAR ATE MY HAMSTER

- Once you have accepted a deal you can record an album.

Recording

- Choose a 48 track studio (#50,000)
- Important: Before you record, you should not have more than #1,000,000 (about #900,000 is a nice figure to have) otherwise someone will hold your master tape to ransom for that price, leaving you short of cash. Give gifts to reduce cash if necessary.

Naming Album Tracks (and Album)

- Keep most of the single tracks named by Clive.
- Change about 3 out of 10 to your own names.
- These names should have similar names to common top 10 records, e.g. "I want your shirt", "Drinking with the gas man", "Hula Hula Bop-A", etc.
- Call your album (when you release it) something to do with the band name, e.g. *The Crazy Band – A billion Crazy Band hits.*

Releasing Singles (and Album)

- Release first single straight away after recording with Busby Berserkely, in the Bahamas. Choose the most "sensible" video type.
- If a single takes more than 4 weeks to chart, release another.
- You won't chart if you release more than one single at a time. (When you release a second the first automatically drops out of the chart).
- Release a second single when the first falls to no 7 or lower. Hopefully you should be able to afford a video with Cecil Bidet-Mills in the Bahamas. Always choose a different video type to all others.
- All subsequent singles should have videos by Steven Cheeseburger in the Bahamas (if affordable).
- Release your album the week your first single charts. The whole game is based on album sales, so this is really important.
- Never re-release a single.

Charity Gigs & Telephone calls (argh!)

- When the Taiwanese outfit report is received, either send the boys around or sue them. You'll still have to pay, even if you win.
- Later in the game, you will get sued or back taxed for £1,000,000, there is nothing you can do about it.
- Charity gigs: Important.

Some charity gigs are real charities, and some are phoney. Your choice to perform the gig is crucial. If you refuse a real charity or accept a phoney one your sales will go down, you'll get bad publicity, single and album sales will fall, etc.

- Determining real charities can be done. It depends on your group's LAST NAME, i.e.

Gig no	1	2	3	4	5	6	7
Armageddon	Y	N	N	N	N	Y	
Donkeys	Y	N	Y	Y	Y	Y	Y
Band	Y	Y	Y	Y	Y		
Orchestra	Y	Y	Y	N	N	N	
Crowd	Y	Y	N	Y	N	Y	

Y = Yes to a charity gig, N = No.

- Note: There are other last names for your group (Organisation, Group etc.) the charity gig sequence for these can be determined by experience.

Gifts

- Give gifts every 2 tours.
- Increase these in value through the year.

Practice

- Don't bother, it just wastes a day!

Publicity

- Don't do publicity unless:
  a) You just got a charity gig wrong.
  b) A star has just quit or died.
  c) Your singles aren't charting.
- Publicity can be fatal – avoided at all times.
- If you do go in for some then repeat until "good" publicity is obtained. Good publicity begins "Rock star..." and a picture of the star appears instead of the page 3 cartoon.

Gigging

- Apart from royalties (very little money), gigging is the only way to get cash.
- Generally, once your first single has been released, all gigs should be in stadiums at #10 for 7 nights.
- N.B. If you begin a 7-night gig on Saturday two charts will pass before you are brought back to the options screen.
- Gigging at #15 hardly ever earns as much as gigging at #10
- If you get a charity gig wrong or a star has died/quit then attendance will be low. Gig in concert halls at #15 for a week before moving back to stadiums.

The Charts (singles and albums)

- The object is to get four gold discs.
- Gold discs can only be achieved by good album sales.
- Good album sales follow on from good single sales.
- You can't directly control where and when singles chart, but a good one will first chart 2 weeks after release.
- The album will normally go up one place in the charts if:
  a) The single goes up (or new entry) at no.8 or higher.
  b) The single stays at no.6 or higher.
  c) The single is no.5 or above.
- The album will go up more places if the single is at no.1
- If the album is out of the charts it takes ages to get it back in.
- Release the next single when the first falls to no.7 or lower.

Mastering m

This month AA starts a new series on assembly language (machine code) programming for beginners. Over the next few months you will learn how to write well structured and mega fantastic assembly code. Who knows? You may well be writing games for Ocean before long! ANDY PRICE is your guide...

Exited? You should be! You are about to venture into the world in which all commercial programmers live. They all eat, drink, sleep and talk assembly language and look like something from *Planet of the Apes* (*speak for yourself – ed*).

And just to show you how painless machine code can be, we are going to start off by writing a simple assembly program to print a character onto the screen. Nothing amazing about that, but after messing around with it and having some fun you'll look forward to part two of this series for more startling stuff.

So, read your assembler instructions and let's get down and boogie...

Type in the program into your assembler in the appropriate way (the instructions will tell you how) and assemble it. Now execute the program by CALL 30000 from BASIC. Wow! It prints the letter 'A' on the screen.

`ORG 30000` is an assembler directive (tells the assembler to do something) which tells it to assemble the listing to address 30000 in memory.

`LD A,65` loads the accumulator with the value 65 in decimal which, in ASCII, is the letter 'A'. Don't worry too much about the accumulator yet, all will be explained later.

`CALL &BB5A` is a firmware call to print a character onto the screen (&BB5A being the address in memory where the routine is stored).

`RET`, the same as END in BASIC, ends the program.

A BASIC alternative

If you have not got an assembler just try to understand the assembler listing and type in the following BASIC listing instead. This listing takes the codes and pokes them into memory, creating a machine code program. By the way, in case you're thinking you don't need an assembler if you can load machine code from BASIC, don't you believe it. Writing code that way is a nightmare! It's so difficult it's practically impossible for a program of any complexity at all.

Fundamentals

You may recall that I was waffling on about the accumulator, well now it's time for explanations.

The Z80 contains various registers (they have the same function as variables in BASIC) where data can be stored. However, in machine code registers are in quite short supply compared with BASIC. Most machine code instructions use these registers and the one which gets the most bashing is the accumulator. The accumulator can hold a number in the range of 0 to 255. In our machine code listing `LD A,65` 'LoaDs' the number 65 into the accumulator.

The other registers are B, C, D, E, H and L. These registers, like the accumulator, are only capable of storing a number from 0 to 255, known as an 8-bit number. Many of you may be thinking,'what about numbers higher than 255?' Well, we can pair the above registers together to get these registers: BC, DE and HL. These can deal with numbers from 0 to 65535, known as 16-bit numbers. There are a few more specialist registers which I will leave for the time being, so that you can get a basic understanding of all the principles I am outlining here.

If all this seems a bit bewildering, don't worry, all will become a lot clearer when we put these registers into action with some serious code, code which will make you shiver, code which will blow your chips wide open, code which will...

Register loading

If you refer back to our machine code listing, you will see the instruction `LD A,65` which loads the accumulator with 65. This type of loading is called immediate addressing. This type of addressing not only applies to the A register (accumulator) but also to all of the other single registers. Thus, the LD instruction generally looks like this:

```
LD register,operand
```

WHAT IS MACHINE CODE?

The Z80 microprocessor is a chip (no, not made of potato) made of plastic, silicon and who knows what else which is the brains of your Amstrad. The machine code numbers are instructions (like PRINT in BASIC) which the machine understands.

This is quite different to the language we're all familiar with – BASIC. BASIC is an interpreted language. What that means is that it can take instructions ordinary human can understand and type in, and then converts them into a form the electronic chippery inside your Amstrad can follow.

The trouble is that while BASIC is easy (well, *easier*) to follow, it's also rather slow and inefficient. This means that although you can program games and serious programs in BASIC, they'll take up more disk space, look worse and run slower than if you program the hardware directly.

That's where machine code comes in. Compared to BASIC it's just a jumble of numbers and weird instructions, but with the help of this series it will all start to make sense...

Machine code is not actually that difficult to grasp, and it offers lots of advantages:

- **Well written code is generally much faster than a BASIC routine designed to do the same thing.**
- **Various nefarious operations can be carried out which are impossible in other languages, such as split mode displays and speech synthesis.**
- **Code generally occupies less memory than a BASIC routine.**

HOWEVER, machine code *is* difficult to understand and debug (don't worry about that) and many instructions are needed to carry out a simple routine, like printing a string of characters onto the screen.

Nevertheless, machine code is far better than any other language – but how do we program in machine code? The simple answer is that we don't. Instead, we program in something called assembly language.

Assembly language is used (only nutters use machine code directly) to make programming in machine code that little bit easier. Assembly uses mnemonics, which are simple memory aids, to help us remember the various instructions.

THE MACHINE

If you've got any problems with machine code generally or with the exercises in this series, write in! No question too daft, no tip too useless – we want to hear from you.

Also, I have had letters passed one from people who wish to know more about pokes and how to find them. Being quite an expert in that area (ahem!) I am willing take the art of poking a little further.

The address to write to in both case is opposite:

achine code

Where 'register' is any 8-bit register – A, B, C, D, E, H or L. 'Operand' refers to either an 8-bit register or an 8-bit number in the range of 0-255.

Ready for another crack at the code? Listing 3 illustrates register loading.

Once again, type the program into your assembler, assemble it and type CALL 30000. This program prints the letter B on the screen (startling stuff!). We are not into the mega code yet but we are indeed getting there...

Listing 3 is a perfect example of register loading. Firstly, register C is loaded with 65. Then register H is loaded with the value held in C, which is 65. The A register is then loaded with the value held in H. This may all seem pretty pointless but it will all come in useful when we come to write more complex programs.

The instruction INC r is a very simple instruction. It increases the value held in an 8-bit register by one, where r is the register. In the example program in Listing 3 it increases the value of the A register by one. Thus A now holds the value 66 which, in ASCII, is the letter B. CALL &BB5A prints the contents of A as a chracter on the screen.

Now it's your turn

Well, we've covered a lot of heavy going this month. Now it's time for a change. You lot are going to write a short assembly program, using the information I have given you.

In your computer manual there should be a list of the standard ASCII character set with the decimal, octal and hexadecimal notations, together with the ASCII code where appropriate. In particular, you will find the ASCII codes from A to z (65 to 122) useful for this exercise.

Get your crayons ready and also get a bit of paper, it will save you using the table (and will save you a lot of trouble). I want you to write a program to print your surname on the screen, using the same style as I used in Listing 1. Nothing too taxing about that! However, anybody who encounters problems will find a very useful solution in the next instalment. So, hack fans, get scribbling... **AA**

CODE CLINIC...

CODE & CHIPS
AMSTRAD ACTION
BEAUFORD COURT
30 MONMOUTH STREET
BATH
AVON BA1 2BW

WHAT DO YOU NEED?

To get the most from this series, there are a few things you need:

1 A decent assembler – look no further than the *AA71 Action Pack*! This contained a full version of *Devpac* from Hisoft, and I shall be referring to this program in future examples – it's the one I can be sure everyone's got! Alternatively, I would recommend *MAXAM* from Arnor, which costs about £25 on ROM, £16 on cassette and £19 on disk. You can get it from any software supplier.

2 A list of Z80 instructions for reference. This can be found in a book called *Programming the Z80* by Rodney Zaks, or *Mastering Machine Code on Your Amstrad* by Interface. The second is the cheaper and the one I have. I recommend going to a library and have a look around there for it.

3 I'm risking my life a bit now, but if you can get your grubby paws on one, get a Firmware manual. This holds explanations of all of the built-in routines like character printing and screen control etc, and is unlikely to be available brand new. Look in the Small Ads section and try to get one second hand. Be warned, though – they're like gold dust. Failing that, I'll explain some of the more useful firmware routines as I go along.

LISTING 1:

```
        ORG 30000

        LD A,65          put the number 65 into accumulator
        CALL &BB5A       print the ascii character on screen
        RET              exit from routine
```

LISTING 2:

```
10 FOR a=30000 TO 30005
20 READ b$:b=VAL(_&| +b$)
30 POKE a,b:NEXT:CALL 30000
40 DATA 3e,41,cd,5a,bb,c9
```

LISTING 3:

```
        ORG 30000

        LD C,65          load C with 65
        LD H,C           load H with value held in C
        LD A,H           load A with value in H
        INC A            increase value of A by one
        CALL &BB5A       print ascii character in A on screen
        RET              exit routine
```

Type-ins

All the programs on the following pages are ones you can type in yourselves. If you reckon you're a bit of a whizz at programming, why don't you send us your own? Just keep them short, that's all. We're unlikely to use anything longer than 6K, and we pay the same for all *Type-ins*, so you won't get any extra cash!

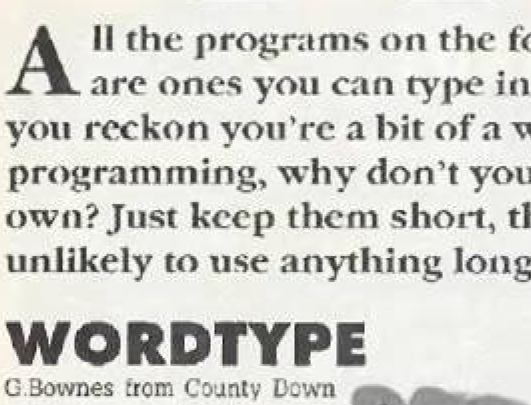
Send your programs to: *Type-ins, Amstrad Action, Future Publishing, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW*

WORDTYPE

G.Bownes from County Down in Northern Ireland has sent in this rather smart little word processor. It's really more of a text processor than a fully-featured program, though, and its only real application is writing letters.

The instructions are included in the program and any document you produce can be as long as you like. There are limitations, though. For example, you can't flow text for more than three lines.

The program is incredibly enough, contained



● ***Wordtype* isn't incredibly sophisticated, but for 2K it's a little marvel!**

in only 2K of code and so is very short. A lovely little prog and well worth the effort of typing in.

```
{BxAs} 1·'WordType·by·G.Bownes
{OpAp} 2·DIM·file$(3000)
{DaBt} 5·MODE·2:CLG:INK·0,6:BORDER·6:INK·1,26:PAPER·0:P
    EN·1
{JrBe} 10·DRAW·0,399:DRAW·639,399:DRAW·639,0:DRAW·0,0
{CuBp} 20·MOVE·0,50:DRAW·639,50:MOVE·0,350:DRAW·639,350
{HlBv} 30·LOCATE·20,2:PRINT"WordType·by·G.Bownes··";CHR
    $(164);"1991"
{MuBs} 40·LOCATE·18,10:PRINT"1.Set·length·and·names·of·
    file"
{GkBj} 50·LOCATE·18,13:PRINT"2.Create·file"
{FpBn} 60·LOCATE·18,16:PRINT"3.Print·the·files"
{JnBw} 70·MOVE·100,100:DRAW·100,200:DRAW·400,200:DRAW·4
    00,100:DRAW·100,100
{KsBp} 80·LOCATE·20,24:PRINT"Please·type·in·your·choice
    :·"
{FuAx} 90·i$=INKEY$:IF·i$=""·THEN·90
{BiBt} 100·i=VAL(i$):IF·i=0·OR·i)3·OR·i$="."·THEN·90·EL
    SE·110
{KlBn} 110·LOCATE·40,24:PRINT·i:FOR·P=1·TO·1000:NEXT
{JkBm} 120·WINDOW·2,79,5,19:CLS:ON·i·GOSUB·130,160,200
{LkAx} 130·LINE·INPUT"Enter·filename·:·";f$
{BmBx} 140·LOCATE·1,5:INPUT"Approx.·number·of·lines·:·"
    ;l:l=INT(l/3)
{CwDm} 150·s=l*3*80:LOCATE·1,10:PRINT"Maximum·character
    ·space·:·";s;"·characters.":FOR·P=1·TO·1000:NEXT:GO
    TO·5
{IrDj} 160·CLS:WINDOW·2,78,5,18:LOCATE·18,2:PRINT"Remem
    ber·to·press·ENTER·after·every·3·lines·of·text"
{AnCn} 170·LOCATE·10,4:PRINT"Maximum·character·space·:·
    ";s;"···Filename·:·";f$
{MmBu} 180·WINDOW·2,78,10,19:CLS:PRINT·CHR$(1):FOR·text
    =1·TO·l
{HiBo} 190·LINE·INPUT·file$(text):PRINT·CHR$(1):NEXT·te
    xt
{OwCj} 195·CLS:LOCATE·20,12:PRINT"FILE·FULL":FOR·P=1·TO
    ·1000:NEXT:GOTO·5
{EqCv} 200·LOCATE·8,10:PRINT"Turn·on·printer,turn·on·li
    ne·and·put·in·paper.Press·any·key·to·print"
{CtCi} 210·CALL·&BB18:LOCATE·20,13:PRINT"Printing·file·
    :·";f$;"·......"
{IqCs} 220·WINDOW·2,78,5,18:CLS:WIDTH·59:FOR·p=1·TO·tex
    t:PRINT#8,file$(p):PRINT·file$(p)
{HmBi} 230·NEXT:FOR·P=1·TO·1000:NEXT:GOTO·5
```

TAPETEST

Tapetest, from Martin Bela, is a very nice utility for owners of tape machines. It uses a facility on the Amstrad which lets you vary the baud rate of the tape unit. This means that you can save your own programs at different speeds, often faster than normal.

The program itself contains all the instructions you need and teaches you what to do as you go along. The program is by the way,

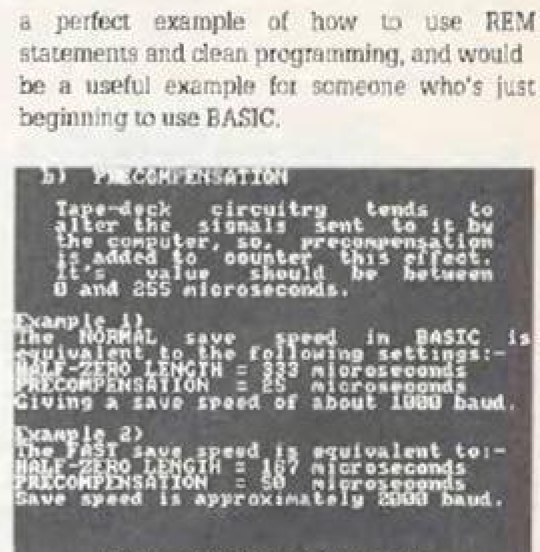


● ***Tapetest* lets you vary the baud rate of your tape unit to find the highest speed at which you can transfer data.**

ARE TYPE-INS PUBLIC DOMAIN?

All Type-Ins submitted to Amstrad Action automatically go into the public domain. If you don't want this to happen, make it clear when you send your program in.

a perfect example of how to use REM statements and clean programming, and would be a useful example for someone who's just beginning to use BASIC.



● ***Taptest* even has its own built-in documentation! (Though by the time you've typed the prog in you'll have read it anyway.)**

```
{JqAv} 10·REM·TAPETEST·by·Martin·Bela
{HeEn} 20·|TAPE:prm$="To·stop·a·faulty·save·press·(ESC)
    ......Then·press·(CONTROL)·and·(ENTER)·for·menu":pr
    mpt$="...Press·(SPACE)·to·continue..."
{LpCj} 30·DATA·15,240,85,170,51,204,0,247,0,0,0,42,0,12
    8,68,2,128,205,184,188,201
{PqEt} 40·MEMORY·&8FFF:wn=1:ok=0:PAPER·0:PEN·1:MODE·1:I
    NK·0,9:INK·1,26:BORDER·12:KEY·140,"GOTO·200"+CHR$(1
    3):WINDOW#1,5,35,25,25:PRINT·TAB(12)"TAPE·SPEED·TES
    TER"
{BlFs} 50·PRINT:PRINT"This·program·will·allow·you·to·de
    terminethe··fastest··reliable···SAVE··and··LOADspee
    ds·of·your·computer/cassette·set-
    up.":PRINT"A·block·of··data··will··be·saved·to·tape
    ";
{HuHo} 60·PRINT"and·then·loaded·back·again.···The·loade
    dfile·is·then·compared··with·the·originaldata·and·a
    ny·differences·reported.":PRINT"You·may·then··selec
    t··a··different·speedand·try·again.":PRINT:PRINT"Yo
    u·will·be·asked·for·two·variables:-":PRINT
{HtGk} 70·PRINT"··a)··HALF-
    ZERO·LENGTH":PRINT:PRINT"···This··effectively··sets
    ··the··save······speed.···It·should·be·between··130
    ······microseconds·and·480·microseconds,······altho
```

```
    ugh··this··program·will·allow·····you··to··experim
    ent··with··a··much"
{IwHj} 80·PRINT"···wider·range·of·values.":GOSUB·390:PR
    INT"··b)··PRECOMPENSATION":PRINT:PRINT"···Tape-
    deck···circuitry···tends···to·····alter·the··signa
    ls··sent··to·it·by·····the·computer,·so,··precompe
    nsation······is·added·to··counter··this·effect."
{DvBx} 90·PRINT"···It's···value···should··be··between··
    ····0·and·255·microseconds.":PRINT
{IwHj} 100·PRINT"Example·1)":PRINT"The··NORMAL··save···
    speed··in··BASIC··isequivalent·to·the·following·set
    tings:-":PRINT"HALF-
    ZERO·LENGTH·=·333·microseconds":PRINT"PRECOMPENSATI
    ON··=·25··microseconds":PRINT"Giving·a·save·speed·o
    f·about·1000·baud."
{GtGv} 110·PRINT:PRINT"Example·2)":PRINT"The·FAST·save·
    speed·is·equivalent·to:-":PRINT"HALF-
    ZERO·LENGTH·=·167·microseconds":PRINT"PRECOMPENSATI
    ON··=·50··microseconds":PRINT"Save·speed·is·approxi
    mately·2000·baud.":GOSUB·390
{FiHq} 120·PRINT"If·you·find·some·settings·that·you·wou
    ldlike·to·use·in·your·own··BASIC··programsthen··you
    r··program··should··contain·thefollowing·five·lines
    :-
    ":PRINT:PRINT"·10·MEMORY·&7FFF":PRINT"·20·FOR·m=&80
    00·TO·&800C":PRINT"·30·READ·d:POKE·m,d:NEXT·m
:";
{FrCv} 130·PRINT"CALL·&8003":PRINT"·40·DATA·x,y,z,42,0,
    128,50":PRINT"·50·DATA·2,128,205,104,188,201"
{HpGj} 140·PRINT:PRINT:PRINT"The··x·y·and·z···in··line·
    ·40··should·bereplaced·with··three·numbers.···You··
    canfind-
    out·what·these·are·by·selecting·the·SHOW·X·Y·Z···op
    tion··from··within··thisprogram.··Please·note··that
    ··this·option";
{IxCu} 150·PRINT"and·the·information·shown·at·the··top·
    ofthe··screen··relate··only··to··the··mostrecent·SA
    VE."
{GrEx} 160·GOSUB·390:MODE·2:WINDOW·1,80,5,23:WINDOW#1,1
    ,27,2,2:WINDOW#2,57,80,2,2:WINDOW#3,32,47,2,2:WINDO
    W#4,1,80,25,25:BORDER·1:INK·1,26:INK·0,4:PRINT"Gene
    rating·data..."
{JnCr} 170·m=&7000:FOR·n=1·TO·8:READ·d:ck=ck+d:FOR·p=1·
    TO·256:POKE·m,d:m=m+1:NEXT·p,n
{LxFr} 180·CALL·&BC65:hz%=333:pc%=25:h%=1:r%=77:FOR·n=&
    7800·TO·&7FFF:POKE·m,0:NEXT:FOR·m=&8000·TO·&800C:RE
    AD·d:ck=ck+d:POKE·m,d:NEXT:CLS#5:IF·ck<>2276·THEN·P
    RINT"ERROR·IN·DATA":END
{CuAr} 190·GOSUB·370:ef=0:wn=0
{HmDu} 200·CLS#4:CLS:GOSUB·390:PRINT"Select·one·of·thes
    e·options:":PRINT:PRINT"1...Save":PRINT:PRINT"2...L
    oad":PRINT:PRINT"3...Compare":PRINT:PRINT"4...Show·
    x·y·z"
{MiFk} 210·IF·INKEY(64)=0·THEN·CLS:GOTO·230:ELSE·IF·INK
    EY(65)=0·THEN·CLS:GOTO·290:ELSE·IF·INKEY(57)=0·THEN
    ·310:ELSE·IF·INKEY(56)=0·THEN·420:ELSE·210
{OrAm} 220·REM·save
{KsAm} 230·GOSUB·380:PRINT:PRINT"SAVE"
{MkCn} 240·PRINT:INPUT"Enter·half-
    zero·length·>·",hz%:IF·hz%>&4FF·THEN·PRINT:PRINT"TO
    O·LONG·...·TRY·AGAIN·...":GOTO·240:ELSE·IF·hz%<1·TH
    EN·PRINT:PRINT"TOO·SHORT·...·TRY·AGAIN·...":GOTO·24
    0:ELSE·GOSUB·370
{PrHv} 250·PRINT:INPUT"Enter·amount·of·precompensation·
    >·",pc%:IF·pc%>255·THEN·PRINT:PRINT"TOO·MUCH·...·TR
    Y·AGAIN·...":GOTO·250:ELSE·IF·pc%<0·THEN·PRINT:PRIN
    T"ILLEGAL·ENTRY....RE-ENTER·HALF-
    ZERO·LENGTH....":GOTO·240:ELSE·GOSUB·370:h%=INT(hz%
    /256):r%=hz%-h
%*256
{LwFl} 260·POKE·&8000,r%:POKE·&8001,h%:POKE·&8002,pc%:C
    ALL·&8003:PRINT:PRINT"Position·tape·ready·to·save."
    ;:CALL·&BC6E:PRINT"·Then·press·<SPACE>":GOSUB·400:C
    ALL·&BC71
{GlDk} 270·PRINT#4,prn$;:ef=0:SAVE·STR$(hz%)+"·-
    "+STR$(pc%),b,&7000,&800:PRINT:PRINT"Done....";:GOS
    UB·390:GOTO·200
{IkAn} 280·REM·load
{GrHu} 290·GOSUB·380:PRINT:PRINT"LOAD":PRINT:PRINT"Posi
    tion·tape·ready·to·load·file.";:CALL·&BC6E:PRINT"·T
    hen·press·<SPACE>":GOSUB·400:CALL·&BC71:PRINT#4,prn
    $;:LOCATE#4,18,1:PRINT#4,"load";:ef=1:LOAD·"",&7800
    :PRINT:PRINT"Done....";:GOSUB·390:GOTO·200
{IsAp} 300·REM·compare
{BrHk} 310·GOSUB·380:CLS:IF·ef=2·THEN·GOTO·330:ELSE·IF·
    ef=0·THEN·PRINT"File·not·loaded·yet!!!":PRINT:GOTO·
    350:ELSE·ex=0:n=&7800:PRINT:PRINT"COMPARE":PRINT:PR
    INT"Please·wait·.....":FOR·m=&7000·TO·&77FF:IF·NOT·
    PEEK(m)=PEEK(n)·THEN·e%=e%+1
{PwCi} 320·POKE·n,0:n=n+1:NEXT:ef=2:PRINT:PRINT"Compari
    son·complete·....";
{DjDj} 330·IF·e%=0·THEN·PRINT"·No·errors";:ELSE·IF·e%=1
    ·THEN·PRINT"·1·error";:ELSE·PRINT·e%;"·errors";
{Jnar} 340·PRINT"·found..."
{Klaw} 350·PRINT:GOSUB·390:GOTO·200
{GwAu} 360·REM·display·variables
{KwFl} 370·CLS#1:PRINT#1,"HALF·ZERO·LENGTH·=";hz%;CHR$(
    183);"s";:CLS#2:PRINT#2,"PRECOMPENSATION·=";pc%;CHR
    $(183);"s";:CLS#3:PRINT#3,"BAUD·RATE·=";USING·"####
    #";333333/hz%;:RETURN
{DmAu} 380·WHILE·INKEY$<>"":WEND:RETURN
{LrAr} 390·PRINT#wn,prmpt$;
{AuBj} 400·WHILE·INKEY(47)<>0:WEND:CLS:RETURN
{ApAo} 410·REM·show·x·y·z
{PqCt} 420·CLS:PRINT"·x·="r%:PRINT:PRINT"·y·="h%:PRINT:
    PRINT"·z·="pc%:PRINT:GOSUB·390:GOTO·200
```

PICSTORE

Nicholas Pye, way up in Bonny Scotland, has sent along this rather smart little graphics utility. The program sets the Amstrad up with a RSXs allowing it to perform some rather neat tricks. Unfortunately, it will only run on a 6128 because of the way it utilises memory.

The utility has three RSXs, which use the following commands:

```
| STORESCREEN, x
| FETCHSCREEN, x
| MINISCREEN, x
```

These commands allow up to four screens to be saved into the 6128's extra memory. Storecreen saves the screen to memory, *Fetchscreen* retrieves it and *Miniscreen* displays all four screens at once.

For example, the line

```
LOAD| screen.scr| ,&C000:|STORESCREEN,2
```

will load a screen and store it in bank 2

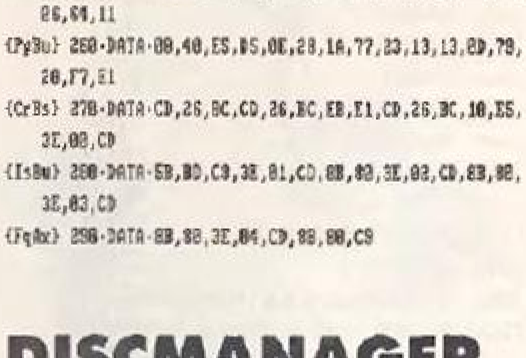
To retrieve it, simply enter

```
| FETCHSCREEN,2
```

The program is fast, clever and, for what it does, surprisingly short. Well done Nicholas.

```
{MqAw} 10·'PICTURE·STORE·DELUX·v2.0
{CtAq} 20·'NICHOLAS·PYE·1991·
{FvBm} 30·'**·WARNING·**·Please·SAVE·before·running.
{IwAo} 40·MEMORY·&7FFF
{LuAk} 50·s=0
{LsAq} 60·FOR·a=&8000·TO·&80E7
{PkAu} 70·READ·b$:b=VAL("&"+b$)
{GpAn} 80·POKE·a,b
{HjAm} 90·s=s+b
{IxAk} 100·NEXT·a
{FwCv} 110·CLS:INK·1,3,18:IF·s<>&6883·THEN·PRINT"Error·
    in·Data":WHILE·INKEY$="":WEND:INK·2,24:PEN·2
{IkAp} 120·CALL·&8000
{HjCu} 130·CLS:LOCATE·1,1:INK·1,18,3:PRINT"RSXs·Install
    ed":WHILE·INKEY$="":WEND:INK·2,24:PEN·2
{FoAj} 140·NEW
{GpBt} 150·DATA·01,0E,80,21,0A,80,CD,D1,BC,C9,8C,8F,8E,
    80,19,80
{CpBs} 160·DATA·C3,3A,80,C3,5C,80,C3,7E,80,53,54,4F,52,
    45,53,43
{JsBt} 170·DATA·52,45,45,CE,46,45,54,43,48,53,43,52,45,
    45,CE,4D
{JcBs} 180·DATA·49,4E,49,53,43,52,45,45,CE,00,FE,01,C8,
    DD,7E,00
{GcBs} 190·DATA·FE,05,D0,FE,00,C8,C6,03,CD,5B,BD,21,00,
    C0,11,00
{FnBq} 200·DATA·40,01,00,40,ED,B0,3E,00,CD,5B,BD,C9,FE,
    01,C0,DD
{IwBt} 210·DATA·7E,00,FE,05,D0,FE,00,C8,C6,03,CD,5B,BD,
    11,00,C0
{CnBq} 220·DATA·21,00,40,01,00,40,ED,B0,3E,00,CD,5B,BD,
    C9,FE,01
{CtBq} 230·DATA·C0,DD,7E,00,FE,05,D0,FE,00,28,48,C6,03,
    F5,CD,5B
{CyBq} 240·DATA·BD,F1,21,00,C0,FE,04,CA,AD,80,21,28,C0,
    FE,05,CA
{PkBt} 250·DATA·AD,80,21,C0,E3,FE,06,CA,AD,80,21,E8,E3,
    E6,64,11
{PyBu} 260·DATA·00,40,E5,D5,0E,28,1A,77,23,13,13,ED,79,
    20,F7,E1
{CrBs} 270·DATA·CD,26,BC,CD,26,BC,EB,E1,CD,26,BC,10,E5,
    3E,00,CD
{IsBu} 280·DATA·5B,BD,C9,3E,01,CD,8B,80,3E,02,CD,8B,80,
    3E,03,CD
{FqAx} 290·DATA·8B,80,3E,04,CD,80,80,C9
```

DISCMANAGER



● The standard Amsdos BASIC interface isn't much fun for file-handling – which is where *Discmanager* comes in...

Discmanager, from Jan Hohansen, is one of those programs that no-one should be without. It has the all usual disk management features and makes filing and sorting your disk collection a good deal easier.

The program is fairly self-explanatory and is very simple to use. Once loaded, you are presented with a menu containing the following commands

RENAME (allows you to retitle programs

quickly and easily)

DELETE FILE (a safer way to erase unwanted files and very fast too)

FORMATTING (formats blank or written disks, entirely erasing the latter)

CATALOG (standard disk cataloguing system)

QUIT returns you to BASIC but still allows access to the program.

```
{NtAa} 10·'DISCMANAGER
{PJBr} 20·'August·1990·-
   ·Thanks·to·MIC·and·BOBBY·THE·BRAIN
{OiAe} 30·'Jan·Jonasen
{NsAl} 40·'Denmark
{ImEi} 50·'********************************************
   ******************************
{BvBj} 60·'***················Disc·-
   ·Manager···································***
{JmAu} 70·'***··········································
   ·····························***
{BpEj} 80·'********************************************
   ******************************
{EkBk} 90·OPENOUT·"x":·MEMORY·HIMEM-1:CLOSEOUT
{NoCl} 100·DATA·&3e,&00,&32,&2f,&80,&3a,&2f,&80,&57,&3a
   ,&30,&80,&5f,&3a,&31,&80
{AkCj} 110·DATA·&4f,&21,&35,&80,&df,&32,&80,&3a,&2f,&80
   ,&fe,&27,&c8,&3c,&32,&2f
{AvCl} 120·DATA·&80,&21,&35,&80,&06,&03,&77,&23,&23,&23
   ,&23,&10,&f9,&18,&d6,&27
{BxAv} 130·DATA·&00,&41,&52,&c6,&07
{CjAr} 140·FOR·i=&8000·TO·&8034
{NmAm} 150·READ·d
{EoAm} 160·POKE·i,d
{OuAk} 170·NEXT
{LtAo} 180·MEMORY·&7FFF
{OmAr} 190·CLEAR:DEFINT·a-z
{EjCk} 200·MODE·1:INK·0,11:INK·1,16,6:INK·2,0:INK·3,24:
   PEN·3:PAPER·2:CLS
{HIAs} 210·ON·BREAK·GOSUB·1240··
{MmAm} 220·BORDER·0
{EmBi} 230·CLS:ORIGIN·0,0,0,640,340,400:CLG·3
{LsCs} 240·PAPER·3:PEN·2:·LOCATE·14,2:PRINT"DISC-
   MANAGER":LOCATE·36,3:PRINT"V·1.1":PAPER·2:PEN·3
{MoAa} 250·LOCATE·1,7
{NxAq} 260·PRINT"1·*·RENAME"
{ApAv} 270·PRINT"2·*·DELETE·FILE"
{AwAt} 280·PRINT"3·*·FORMATING"
{HxAq} 290·PRINT"4·*·CATALOG"
{JuAu} 300·PRINT"5·*·END·PROGRAM"
{AkBq} 310·LOCATE·1,20:PEN·1:PRINT"You're·choice:"
{NiAx} 320·a$=INKEY$:IF·a$=""·THEN·320
{DsBm} 330·we=VAL(a$):IF·we<1·OR·we>5·THEN·320
{NwBl} 340·PEN·3:ON·we·GOTO·1120,500,350,1060,1240
{NyCs} 350·'============================================
   ==============================
{JiAr} 360·'·····························Formating
{LxCr} 370·'============================================
   ==============================
{CoCt} 380·CLS:PRINT"1·*·VENDOR·format":PRINT:PRINT"or"
   :PRINT:PRINT"2·*·DATA·ONLY·format"
{MoBm} 390·a$=INKEY$:IF·a$<"1"·OR·a$>"2"·THEN·390·
{ArCk} 400·IF·a$="1"·THEN·f$="VENDOR":y=&41·ELSE·f$="DA
   TA·ONLY":y=&C1
{MrAl} 410·x=&8035
{HpAn} 420·FOR·i=1·TO·9
{HIBm} 430·POKE·x,0:POKE·x+1,0:POKE·x+2,y:POKE·x+3,2
{PiAm} 440·x=x+4
{MpBl} 450·y=y+2:IF·(y·AND·&F)=&B·THEN·y=y-9
{FxAk} 460·NEXT
{NvBq} 470·PRINT"Please·put·in·disc":PRINT"And·press·*·
   SPACE·*"
{JsAx} 480·IF·INKEY$=""·THEN·480
{CrAu} 490·CALL·&8000:GOTO·190
{HmCr} 500·'============================================
   ==============================
{HlAt} 510·'·································Delete·fil
   e
{CjCs} 520·'============================================
   ==============================
{MxAu} 530·DIM·a$(65),era(64):CLS
{EjBl} 540·LOCATE·4,11:PRINT"Directory·reading..."
{ExAt} 550·lin$=STRING$(40,154)
{EjAp} 560·FOR·i=0·TO·63
{DjAt} 570·a$(i)=STRING$(11,32)
{GkAk} 580·NEXT
{MxBq} 590·a=PEEK(&B85A):POKE·&B85A,&C9:CAT:POKE·&B85A,
   a
{OnBt} 600·anz=PEEK(&A312):a=PEEK(&A79C)*256+PEEK(&A79B
   )+1
{BIAl} 610·CLS
{CiAq} 620·FOR·i=0·TO·anz
{GvBk} 630·POKE·@a$(i)+1,a-(INT(a/256)*256)
{FiBj} 640·POKE·@a$(i)+2,INT(a/256):a=a+14
{IoAk} 650·NEXT
{DuAp} 660·FOR·i=0·TO·anz
{PrBs} 670·IF·ASC(LEFT$(a$(i),1))=0·THEN·a=i:i=anz:GOTO
   ·700
{IoBj} 680·a$(i)=LEFT$(a$(i),8)+"."+RIGHT$(a$(i),3)
{AoAn} 690·PRINT·a$(i),
{NsAn} 700·NEXT:anz=a
{CnAv} 710·LOCATE·1,22:PRINT·lin$
{GtAp} 720·PRINT·CHR$(10)
{FuCk} 730·txt$="you·want·to·delete·on·this·disc?·(y/n)
   ":GOSUB·1040
{FtBk} 740·GOSUB·1050:IF·LOWER$(a$)="y"·THEN·790
{RtBr} 750·txt$="ENTER·=·New·disc,·X·=·End":GOSUB·1040
{MkBo} 760·GOSUB·1050:·IF·a$=CHR$(13)·THEN·ERASE·A$,ERA
   :GOTO·500
{OpBm} 770·IF·LOWER$(a$)="x"·THEN·190·ELSE·760
{MxAv} 780·PRINT·CHR$(10):PRINT·CHR$(17)
{JjBx} 790·txt$="Press·'COPY'·to·mark·file·to·delete":G
   OSUB·1040
{FuAq} 800·x=0:xc=1:yc=1:GOTO·900
{BkBu} 810·x=temp:GOSUB·1050:IF·a$=CHR$(13)·THEN·950
{MqBu} 820·IF·ASC(a$)=&F0·THEN·x=x-
   3:IF·x<0·THEN·810·ELSE·900
{GoCi} 830·IF·ASC(a$)=&F1·THEN·x=x+3·:IF·x>anz-
   1·THEN·810·ELSE·900
{AnBx} 840·IF·ASC(a$)=&F2·THEN·x=x-
   1:IF·x<0·THEN·810·ELSE·900
{EoCj} 850·IF·ASC(a$)=&F3·THEN·x=x+1:IF·x>anz-
   1·THEN·810·ELSE·900
{FwBi} 860·IF·ASC(a$)<>&E0·THEN·810
{PrAs} 870·era(x)=era(x)·XOR·1·
{HoAu} 880·LOCATE·xc,yc:PAPER·era(x)
{OrAv} 890·PRINT·a$(x);:PAPER·2:GOTO·810
{KmBa} 900·yc0·=·x\3+1:xc0=(x-((yc0-1)*3))*13+1
{LqBm} 910·LOCATE·xc,yc:PAPER(era(temp)=0)*-2+era(temp)
{MpAt} 920·PRINT·a$(temp);:PAPER·2
{BmBr} 930·LOCATE·xc0,yc0:PAPER·era(x):PRINT·a$(x);:PAP
   ER·2
{EpBk} 940·xc=xc0:yc=yc0:temp=x:GOTO·810
{EvBi} 950·LOCATE·xc,yc:PAPER·2+(era(x)<>0):PRINT·a$(x)
   ;:PAPER·2:txt$="Are·all·files·markt·(y/n)":GOSUB·10
   40
{MxBl} 960·GOSUB·1050:·IF·LOWER$(a$)<>"y"·THEN·790
{CtBx} 970·txt$="Do·you·want·to·delete·them?·(y/n)":GOS
   UB·1040
{AlBn} 980·GOSUB·1050:·IF·LOWER$(a$)<>"y"·THEN·790
{PoBu} 990·txt$="THE·FILES·ARE·NOW·GETING·DELETE!!":GOS
   UB·1040
{EvAp} 1000·FOR·i=0·TO·anz
{WpAu} 1010·IF·era(i)·THEN·|ERA,@a$(i)
{EiAl} 1020·NEXT
{NuAn} 1030·GOTO·1090
{EIBn} 1040·LOCATE·4,24:PRINT·CHR$(20);txt$:RETURN
{EkBo} 1050·a$=INKEY$:IF·a$=""·THEN·1050·ELSE·RETURN
{KsCr} 1060·'===========================================
   ==============================
{EoAr} 1070·'·····························Catalog
{MuCr} 1080·'===========================================
   ==============================
{AlAn} 1090·CLS:CAT
{MuBi} 1100·PRINT:PRINT"············PRESS·*·SPACE·*"
{GnBn} 1110·IF·INKEY$=""·THEN·1110·ELSE·190
{BuCs} 1120·'===========================================
   ==============================
{CoAr} 1130·'·····························Rename
{GkCs} 1140·'===========================================
   ==============================
{AqAl} 1150·CLS
{PsBq} 1160·INPUT"Old·filename:·",falt$:IF·falt$=""·THE
   N·190
{KnBw} 1170·INPUT"New·filename:·",nyf$:IF·nyf$=""·THEN·
   190
{PiAs} 1180·PRINT"Put·in·disc"
{MmBu} 1190·PRINT"On·whits·the·file·"CHR$(24);falt$;CHR
   $(24)"·is"
{MbAx} 1200·PRINT:PRINT"Then·any·key"
{NoAx} 1210·IF·INKEY$=""·THEN·1210
{IkAu} 1220·|REN,@nyf$,@falt$
{MnAw} 1230·GOTO·190
{DuCs} 1240·'===========================================
   ==============================
{PkAp} 1250·'·····························END
{KoCs} 1260·'===========================================
   ==============================
{BuBn} 1270·CLS:txt$="Are·you·sure·(Y/N)":PRINT·txt$
{DjBl} 1280·GOSUB·1050:IF·LOWER$(a$)<>"y"·THEN·190
```

AA

What are all these funny codes and dots?

The four-character codes in the curly brackets { } in front of each line are there to help you type in the listings correctly. They're designed to be used in conjunction with the *Typerighter* program we print periodically in *Type-ins*. (It's also been on the covertape a couple of times.)

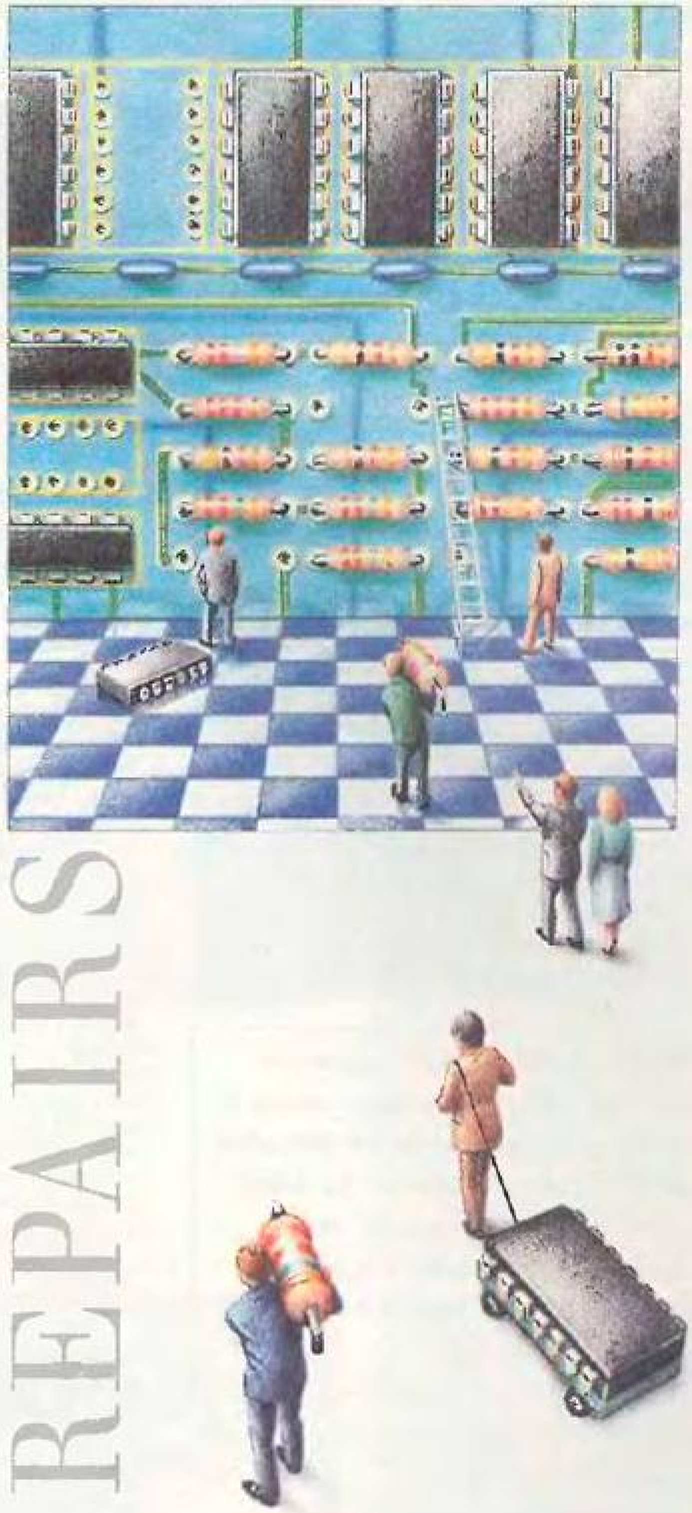
You RUN *Typerighter*, then start typing as normal. With each line you type, *Typerighter* generates a four-digit code you can check against the one printed in the magazine. If it doesn't agree, you know you've done something wrong!

If you haven't got a copy of *Typerighter*, ignore the codes altogether. Be warned, though – it's virtually impossible to type in a listing of any length without making a mistake *somewhere*, and they can be the very devil to track down later.

As for the dots in the lines themselves, they're there to indicate spaces. If the programmer has put in loads of spaces, for example to centre a message on the screen, it can be almost impossible to count them correctly – and if you don't, *Typerighter* may generate a different code to the one printed. The number of spaces won't make any difference to the way the program works, but it may make you think you've done something else wrong!

So remember, replace all the dots with spaces.

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HELPLINE

Feeling helpful? Just send your name, address, phone number (say if you don't want it printed) and subjects on which you're offering help to: *Helpline*, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2AP. Please write on a postcard or the back of a stuck down envelope and keep it short or you won't get in (or you'll get cut to 'loadsagames').

If you want help contact the appropriate Helpliner – not us. By post include a self-addressed, stamped envelope for the reply – or you won't get one. And phone only in decent hours!

Piracy is not welcome: don't try it, you'll get booted off. Keep it legal. And if you receive SAE's, for heaven's sake return them with some acknowledgement. Finally, if you want to come off *Helpline* just write in and say so.

• Due to the huge response for the Helpline page, we're having to cut down on the size of individual entries. So from now on, please quote only your first name and a phone no. That way, you'll be more likely to get in...

Wanted: *Hostages* on tape for 464. I will swap *Shadow of the Beast* or *Narc*, both brand new.
Stephen, 0782 750995

Wanted: *Hard Drivin'* and *Turrican* for Amstrad 464 tape. Will swap for other game (list for selection) also penpal to swap games, pokes and cheats, age 11-14.
Dave, 0270 872217 after 5pm

Wanted: 64K memory upgrad and 2nd disk drive. Swap for Epson MX80 printer – untested, but boots-up. All buttons work.
Wayne, 0532 572154

Does anyone know of any companies which sell a PCB designer program, or even any PD libraries with some good PCB designers? I have tried one PD program, and it didn't work properly. But what do you expect for free! Also, *Little Computer People* wanted on disk.
Keith, 0384 67712

University/polytechnic contanct wanted by 18 year old male hopefully entering university in October.
Paul, 0304 812342

Desperately wanted: *The Double, Lords of Midnight, Myth* & *Italy 1990* or *World Soccer* (disk or tape). Will swap for *Sim City, Rick Dangerous* & many more. Any war games wanted & Multiface pokes for *Elite* (tape, original version) that work, unlike those in *AA53*!
James, 0202 422429

Help! Does anyone want to swap a Multiface 2 for an AMX Mouse, interface, graphics package, that's fully boxed with a manual? Cost £60 new. Also, can anyone help me? I can't get past the octopus in *NZ Story*.
James, 08403 710 after 4pm

Wanted: All keypress pokes, cheats, pokes, maps.
Russel, 0886 32710 Mon-Fri 6-7pm

Help offered for *Protext* ROMDOS, machine code etc. Help wanted for ROM programming.
Sam, 09603 78530

Wanted: 13-14 year-old penpal with 464 cassette interested in swapping games.
Mark, 02656 5-6pm

Will swap my *Bloodwych* (disk) for *Bard's Tale* (disk).
Derek, 0352 720525

Has anyone got a poke for *Gryzor* on tape (budget version)? I have a few pokes to swap and lots of *AA Type-ins*. I am also looking for a male penpal (not to swap games) with a CPC464 12-14 yrs old. Anybody who runs a tape-based PD library, please get in touch.
Mark, 0795 661157

Please could anyone help me with tape loading for the CPC6128? If help given and I load, for your help you will be rewarded with games.
Wayne, 071 700 0715 Mon-Fri after 4pm, weekends 12-9pm

Help! Has anyone got a map showing where all 30 gold coins are in *Fantasy* and *Treasure Island Dizzy*? Also, will anyone swap *Pro Ski Sim* or *Gemini Wing* for Codemasters' *Bigfoot* or swap Grandslam's *Thunderbirds* for *Rick Dangerous 2* (tape/464)?
Ian, 0203 349247 5-8pm

I have *Ballcrazy, Formula One Simulator, Galletron, Jackle & Wide, Masterclass, Stormbringer, Strike, Rick Dangerous 2, AA* covertape (*Pusanic, Lost Caves, Space Froggy*) and *AA Action Packs 1-3*. All on tape. Would anybody like them (because I only have a disk drive)? Will swap or sell. Also I have 27 magazines inc. *Computing with the Amstrad, ACU* & *AA*. Not for sale but am willing to photocopy any information from them for people. Also have April 1991 – *Computer Shopper* up for grabs.
Heather, 0273 422603

Has anyone out there got *X-Out* or *Turrican* on tape to swap. My games are *WEC Le Mans, Last Ninja 2, Afterburner, Double Dragon, Iron Man, Turtles, Rainbow Islands*. Your game must not be pirated!
Michael, 081 394 0083

Wanted: *Crazy Cars II, Western Games, Basket Master, Super Monaco GP, Man Utd, Kick Off 2, Italy '90, World Cup '90, Emlyn Hughes Int Soccer* and *Golden Axe*. Help wanted on *Rick Dangerous* and *Ghostbusters II*. Prepared to pay £4 or under for the games above. All on cassette.
Paul, 0472 210242

Old-mate 20. I have this printer without the manual. Can anyone advise me on codes for alternate fonts, italics etc? Any information welcome!
Stewart, 0924 402124

Wanted: *Bloodwych, Rick Dangerous, Rainbow Island* and *The Dizzy Collection*. Will swap for games such as *Chase HQ, We are the Champions, Sim City, Batman – the Movie, Ghostbusters 2, Indiana Jones & the Last Crusade* plus many others or buy for reasonable price.
William, 0896 831278 5-7pm

OI!

Helpline is for readers wanting help, tips or penpals, or offering any of the above. No money is to change hands, OK? This page is for *free* help only. If you send in an entry asking for money for your services you're wasting your time and a stamp – it'll be straight in the bin. On the other hand, send in a cheque for £5 and you could go in *Small Ads*...

Does anyone have *Lords of Chaos* on disk that they are willing to swap for *Dominator* on disk? I am desperate!
David, 0475 705039

Does anyone want to swap anything for some magazines? I have 19 CWTAs from Aug '86 to Dec '88, 7 ACUs from 1989, 7 WACCIs from issue 41 to 47, and all *AAs* from issue 49 onwards. Will consider software, firmware or hardware!
John, 0225 873988

Wanted: *Rock & Wrestle* cassette for CPC464 in exchange for *Double Dragon II, Manchester United, Kick Off II*, or *Gazza's Super Star Soccer*.
Richard, 021 358 2517

Wanted: *Amstrad Action* (issues 1-66). Will swap vgc Spectrum +2 with games.
Ferguson, 0942 38056

Will swap *Atom Ant* and *Turbo Kart Racer* for *Fantasy Land Dizzy*, all on 464 cassette.
Derek, 0292 311333

Help! I urgently need an Amstrad SSA1 speech manual. I have a 464. Has anyone got *Jack the Nipper* on cassette? I will swap for *Collapse* and *Zub*. Also, any tips for *Elite*.
Lee, 0363 2491

Have got *Tengen Trilogy, Total Eclipse, Football Manager 2 Expansion Kit* and *Night Raider* (tape – all never played) and *4th Dimension* disk (never played). Any one for three budgets. Best offer gets them (would love *Dizzy* in original box).
Simon, 05242 71938 outside school hours

I need help with a program. A friend of mine has got a computer program called *Autoroute Plus (C)*. His computer is Akhter Student PC 286. I know it is bigger than the 6128 that I am using, but is there a program that does the same job? Has anybody got *Karnov* and *UN Squadron* on disk? I have got tape games to swap for them.
Mike, 0623 846017

Help! I need spring for print-head of my DMP2000!
Ben, 0457 863023

Wanted: back issues of *AA*. *Laser Squad* (disk), *X-Out, F-16 Combat Pilot* (disk).
Michael, 02575 5566

Wanted: *Powerdrift* and *Classic Collection*, tape or disk. I am willing to swap for *10 Great Games II, Revolution, Bouderdash IV (Construction Kit)* and *Dizzy II*. **Craig, 0294 54576**

Has anyone out there got *F-16 Combat Pilot* to swap for *Tempest, Turtles, Space Ace, Gregory loses his Clock* and *Through the Trap Door*. Also willing to buy *Panic Dizzy*, as it's not out in Shrewsbury. Also to swap: *Shogun* for *Op Thunderbolt*? Also, I would like to ask anyone about my printer (an Amstrad DMP2000). It always prints everything twice, and leaves a line between each row of print. AAAArrrggghhh!
Adrian, 0743 236914

Has anyone got an original copy of Disk B for *Fleet Street Editor*? Needed urgently, will buy for sensible price or has anyone got the whole program that they want to sell for under £15?
Matthew, 0843 64034

I want to get a first disk drive for the Amstrad 464. Has anybody got one to swap for games or a reasonable price paid.
Mick, 0623 846017

Badly need help with *HTBA Complete B*! Will swap *AAs* (with covertapes) for *Laser Squad* (disk) and *Chase HQ* (disk) for Multiface 2, *Ninja Turtles* (disk) and *Viz* (disk).
James, 0727 52619 after 6pm

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AAfterthought

They're all off!

It must be summer madness, or something, but scant weeks since the departure of Adam onto the new public domain magazine, Frankie (hoots mon) O'Connor is off to swell the ranks of another mag. It's outrageous! How could we ever replace Frank? (Have you seen the price of cabbages lately?) Ah, it's a sad, sad day...

Frank O'Connor: an obituary

Here, wait a minute, is anyone around? No. Good. Listen readers, I have to tell you the truth about working at *Amstrad Action*. I know we've been saying all along that it's a dreamy place to work, all chrome and smoked glass. The fact is, it's nothing like that at all. In fact, *Amstrad Action* is located in the cellar area of Future Publishing. It's damp, smelly and very dangerous. The only thing I have down here to keep me company, is the mouldering skeleton of the last Staffer, James Leach.

I've had enough. I spotted a weak bit of cement in the cellar wall the other day and I've been hacking away at it with a lolly stick for a solid forty-eight hours. I've made a breakthrough and I'm going to escape now. I thought I had better tell you the truth about Rod before it's too late.

Rod Lawton is not the fluffy, amiable editor you all believe him to be. He is in fact a twisted space fiend from the planet Zog. His plan for world domination is almost complete. All he needs to finish building his superweapon, is a tesco bag, a bit of hairy string and a double joystick adaptor.

He keeps me here, locked up all day and night. I have to do the whole magazine by myself and I'm not allowed to sleep. The only thing I get to eat, is a packet of Parma Violets and a piece of cheese. He doesn't know I'm doing this – the mag goes off to the printers in a couple of minutes, so he won't find out.

Later dudes, I'm outa here...

Frank

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